

IID AAP82647 standard; protein; 7 AA.
XX AAP82647;
AC
XX
XX 25-MAR-2003 (revised)
DT 07-NOV-1990 (first entry)
XX
XX Linear alpha-melanotrophin (MSH) analogue.
XX
XX Alpha-melanotrophin; alpha-MSH; melanin; hypopigmentation.
XX
XX Synthetic.
XX
XX Key Location/Qualifiers
PH Misc-difference 1
FT /label= Nle
FT Modified-site 4
FT /label= D-Phe
XX
XX EP292291-A.
PN
XX
XX 23-NOV-1988.
PD
XX
XX 19-MAY-1988; 88EP-00304551.
PF
XX
XX 22-MAY-1987; 87US-00053229.
PR
XX (UYPA) UNIVERSITY PATENTS INC.
XX
XX Hruby VJ, Alobeidi FA, Hadley ME;
PI
XX WPI; 1988-331833/47.
XX
XX New linear and cyclic alpha-melanotropin analogues - having increased
PT potency and duration of action, used to stimulate melanocytes to produce
FT melanin.
FT
XX Claim 1; Page 20; 20pp; English.
PS
XX The analogues are more potent and/or last longer than alpha-MSH and/or
CC are more resistant to degradation by blood serum enzymes. They may be
CC useful than alpha-MSH in diagnosis, therapy and research into
CC hypopigmentation dysfunctions etc. (Updated on 25-MAR-2003 to correct PI
CC field.)
XX
XX Sequence 7 AA;
PS
XX Hruby VJ, Alobeidi FA, Hadley ME;
PI
XX WPI; 1988-331833/47.
XX
XX New linear and cyclic alpha-melanotropin analogues - having increased
PT potency and duration of action, used to stimulate melanocytes to produce
FT melanin.
FT
XX Claim 1; Page 20; 20pp; English.
PS
XX The analogues are more potent and/or last longer than alpha-MSH and/or
CC are more resistant to degradation by blood serum enzymes. They may be
CC useful than alpha-MSH in diagnosis, therapy and research into
CC hypopigmentation dysfunctions etc. (Updated on 25-MAR-2003 to correct PI
CC field.)
XX
XX Sequence 7 AA;
PS
XX Query Match 100.0%; Score 36; DB 1; Length 7;
XX Best Local Similarity 83.3%; Pred. No. 1.4e+06;
XX Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 1 DHXRWK 6
DB 2 DHFRWK 7
RESULT 5
AAP82640
IID AAP82640 standard; protein; 7 AA.
XX
XX AAP82640;
AC
XX
XX 25-MAR-2003 (revised)
DT 07-NOV-1990 (first entry)
XX
XX Linear alpha-melanotrophin (MSH) analogue.
XX
XX Alpha-melanotrophin; alpha-MSH; melanin; hypopigmentation.
XX
XX Synthetic.
XX
XX Key Location/Qualifiers
PH Misc-difference 1

FT /label= Nle
XX EP292291-A.
PN
XX 23-NOV-1988.
PD
XX 19-MAY-1988; 88EP-00304551.
PF
XX 22-MAY-1987; 87US-00053229.
PR
XX (UYPA) UNIVERSITY PATENTS INC.
XX
XX Hruby VJ, Alobeidi FA, Hadley ME;
PI
XX WPI; 1988-331833/47.
XX
XX New linear and cyclic alpha-melanotropin analogues - having increased
PT potency and duration of action, used to stimulate melanocytes to produce
FT melanin.
FT
XX Claim 1; Page 20; 20pp; English.
PS
XX The analogues are more potent and/or last longer than alpha-MSH and/or
CC are more resistant to degradation by blood serum enzymes. They may be
CC useful than alpha-MSH in diagnosis, therapy and research into
CC hypopigmentation dysfunctions etc. (Updated on 25-MAR-2003 to correct PI
CC field.)
XX
XX Sequence 7 AA;
PS
XX Query Match 100.0%; Score 36; DB 1; Length 7;
XX Best Local Similarity 83.3%; Pred. No. 1.4e+06;
XX Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 1 DHXRWK 6
DB 2 DHFRWK 7
RESULT 6
AAP82632
IID AAP82632 standard; peptide; 7 AA.
XX
XX AAP82632;
AC
XX
XX 25-MAR-2003 (revised)
DT 27-JAN-1993 (first entry)
XX
XX MSH peptide deriv. (6).
DE
XX Melanocyte-stimulating hormone; chelate; receptor; diagnosis;
XX therapeutic.
XX
XX Synthetic.
XX
XX Key Location/Qualifiers
PH Modified-site 1
FT /label= NLE
FT Misc-difference 4
FT /note= "D-form residue"
FT Modified-site 7
FT /note= "substtd. on side chain NH2, e.g. by bis(2,3-
FT dihydroxypropyl)"
XX
XX EP498771-A2.
PN
XX 12-AUG-1992.
PD
XX 03-FEB-1992; 92EP-00810072.
XX
XX 05-FEB-1991; 91GB-00002450.
XX
XX (SANO) SANDOZ AG.
XX
XX

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CC The sequences given in AAR65782-88 are linear and cyclic peptides which
CC may be used for bringing about a sexual response or for diagnosing
CC psychogenic sexual dysfunction in males. These peptides specifically
CC bring about penile erection, however at higher doses some stomach
CC discomfort was noted. The peptides were prepared by standard methods of
CC solid phase synthesis. (Updated on 25-MAR-2003 to correct PN field.)
XX
XX
SQ
SQ Sequence 7 AA;
Query Match 100.0%; Score 36; DB 2; Length 7;
Best Local Similarity 83.3%; Pred. NO. 1.4e+06;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 1 DHXRWK 6
DB 2 DHERWK 7
||:|||
||:|||
RESULT 8
AAR65783
ID AAR65783 standard; peptide; 7 AA.
XX
XX AAR65783;
XX
XX
XX 25-MAR-2003 (revised)
XX 22-JUN-1995 (first entry)
XX
XX Cyclic peptide #1 for treatment of male psychogenic sexual dysfunction.
XX
XX Linear; cyclic; sexual response; psychogenic sexual dysfunction; male;
XX penile erection; stomach discomfort.
XX
XX Synthetic.
XX
XX Key Location/Qualifiers
XX Modified-site 1 /label= Nle
XX FT /note= "Acylated residue"
XX FT
XX Modified-site 2 /note= "Forms peptide linkage with Lys7"
XX FT
XX Misc-difference 4 /note= "D-form residue"
XX FT
XX Modified-site 7 /note= "Amidated C-terminal, forms peptide linkage with
XX FT Asp2"
XX FT
XX WO9422460-A1.
XX
XX
XX 13-OCT-1994.
XX
XX 04-APR-1994; 94WO-US003677.
XX
XX 05-APR-1993; 93US-00043159.
XX
XX (UYPA ) UNIVERSITY PATENTS INC.
XX
XX Hadley ME;
XX
XX
XX WPI; 1994-332809/41.
XX
XX
XX Diagnosis and treatment of male psychogenic sexual dysfunction - by
XX administering erectogenic am. of specified hepta- to deca-peptide amide.
XX
XX Claim 1; Page 20; 24pp; English.
XX
XX The sequences given in AAR65782-88 are linear and cyclic peptides which
XX may be used for bringing about a sexual response or for diagnosing
XX psychogenic sexual dysfunction in males. These peptides specifically
XX bring about penile erection, however at higher doses some stomach
XX discomfort was noted. The peptides were prepared by standard methods of
XX solid phase synthesis. (Updated on 25-MAR-2003 to correct PN field.)
XX
XX
XX Sequence 7 AA;
SQ

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CC      collection of sperm. The peptides invariably induce an erection in men at
CC      low doses (e.g. 1-10 mg) and without any detectable side effects when
CC      administered systemically. The peptides, at low doses, also allow
CC      detumescence following ejaculation
XX
SQ      Sequence 7 AA;

      Query Match      100.0%; Score 36; DB 2; Length 7;
      Best Local Similarity 83.3%; Pred. No. 1.4e+06;
      Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Oy      1 DHXRWK 6
      {::|||}
Db      2 DHERWK 7

RESULT 9
AAW19922
ID      AAW19922 standard; peptide; 7 AA.
XX
AC      AAW19922;
XX
DT      19-JAN-1998 (first entry)
DE      Erectogenic peptide #2.
XX
KW      Erectogenic peptide; erectile dysfunction; penile erection;
KW      sexual dysfunction; testosterone; impotence; sexual response;
KW      oestrus cycle; coitus; artificial insemination; detumescence;
KW      ejaculation; cyclic.
XX
OS      Synthetic.
XX
FH      Key      Location/Qualifiers
FT      Modified-site 1 /label= Nle
FT      /note= "N-terminal acetyl"
FT
FT      Modified-site 2 /note= "the side chain carboxyl group of Asp2 forms a
FT      lactam bridge with the epsilon amino group of Lys at
FT      position 7"
FT      /note= "D-form residue"
FT      Misc-difference 4
FT      Modified-site 7 /note= "C-terminal amide; the epsilon amino group of Lys7
FT      -NH2 forms a lactam bridge with the side-chain carboxyl
FT      group of Asp at position 2"
XX
EN      CA2158425-A.
XX
PD      16-MAR-1997.
XX
PF      15-SEP-1995; 95CA-02158425.
XX
PR      15-SEP-1995; 95CA-02158425.
XX
PA      (HADL/) HADLEY M E.
XX
PI      Hadley ME;
XX
DR      WPI; 1997-320151/30.
XX
PT      Diagnosis and treatment of erectile dysfunction - by administering an
PT      erectogenic peptide containing the sequence Nle-Asp-His-D-Phe-Arg-Trp-
PT      Lys.
XX
PS      Claim 1; Page 28; 32pp; English.
XX
CC      These erectogenic peptides (AAW19921-7) are used in a novel method for
CC      inducing penile erection in an animal. They can be used, in conjunction
CC      with testosterone or another androgen, to treat impotence in elderly men
CC      whose testosterone levels are declining with age. The peptides also
CC      appear to have an effect of increasing sexual response in females. They
CC      may therefore be administered to increase libido in female animals of
CC      rare species in captivity at the proper time in their oestrus cycle to
CC      make them more receptive to coitus. They may also be administered to the
CC      male animal at the same time to induce the erectile response. The
CC      peptides may be used in artificial insemination programmes to encourage
CC      an animal, e.g. a stallion, to mount a mock female phantom used in the

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CC collection of sperm. The peptides invariably induce an erection in men at
 CC low doses (e.g. 1-10 mg) and without any detectable side effects when
 CC administered systemically. The peptides, at low doses, also allow
 CC detumescence following ejaculation

XX SQ Sequence 7 AA;

Query Match 100.0%; Score 36; DB 2; Length 7;
 Best Local Similarity 83.3%; Pred. NO. 1.4e+06;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
 ||:||||
 Db 2 DHFRWK 7

RESULT 11
 AAW45070
 ID AAW45070 standard; peptide; 7 AA.

XX AC AAW45070;

XX 28-APR-1998 (first entry)

XX Lactam-bridged Ac-[Nle(4), Asp(5), D-Phe(7), Lys(10)]-alpha-MSH(4-10)-NH2.

XX cyclic; bridged; lactam; MSH; alpha-melanocyte stimulating hormone;
 XX alpha-melanotropin; analogue; pigmentation.

XX Synthetic.

XX Key Location/Qualifiers

XX Modified-site 1 /label= Nle

FT /note= "the N-terminal is acetylated"

FT Modified-site 2..7

FT /note= "these two positions are bridged by -Arg-Arg-, -

FT Arg-Lys- or -Lys-Arg-"

FT Misc-difference 4 /note= "D-form residue"

FT Modified-site 7 /note= "the C-terminal is amidated"

XX US5683981-A.

XX 04-NOV-1997.

XX 06-JUN-1995; 95US-00470343.

XX 22-MAY-1987; 87US-00053229.

XX 29-JUN-1988; 88US-00212807.

XX 13-NOV-1990; 90US-00611456.

XX 31-AUG-1992; 92US-00938781.

XX 22-FEB-1994; 94US-00199775.

XX (COMP-) COMPETITIVE TECHNOLOGIES INC.

XX Hadley ME, Hruby VJ, Sharma SD;

XX WPI; 1997-549006/50.

XX Cyclic alpha-melanotropin analogues - useful for darkening skin.

XX Claim 1, 2, 9, 10, 11; Col 13-16; 9pp; English.

XX The sequence represents a new cyclic analogue of alpha-melanotropin
 CC (alpha-MSH) having a defined lactam bridge between Asp(2) and Lys(7).
 CC These analogues are used for stimulating melanocytes to cause darkening
 CC of the skin without the need to expose the skin to sunlight or UV
 CC radiation. They are used especially for normalising hypopigmentation
 CC dysfunctions

XX SQ Sequence 7 AA;

Query Match 100.0%; Score 36; DB 2; Length 7;
 Best Local Similarity 83.3%; Pred. NO. 1.4e+06;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
 ||:||||
 Db 2 DHFRWK 7

RESULT 12

AAW29355
 ID AAW29355 standard; peptide; 7 AA.

XX AC AAW29355;

XX 13-JAN-1998 (first entry)

XX Linear human alpha-melanocyte stimulating hormone analogue 7.

XX Human alpha-melanocyte stimulating hormone; analogue; alpha-MSH;
 KW alpha-melanotropin; proopiomelanocortin; hypopigmentation;
 KW pityriasis alba; tinea versicolor; vitiligo;
 KW idiopathic guttae hypomelanosis; nevus depigmentosus; animal pelt.

XX Synthetic.

OS Homo sapiens.

XX Key Location/Qualifiers

XX Modified-site 1 /label= Nle

FT /note= "N-acetyl Norleucine"

FT Misc-difference 4 /note= "D-form residue"

FT Modified-site 7 /note= "C-terminal amide"

XX US5674839-A.

XX 07-OCT-1997.

XX 06-DEC-1994; 94US-00349902.

XX 22-MAY-1987; 87US-00053229.

XX 29-JUN-1988; 88US-00212807.

XX 13-NOV-1990; 90US-00611456.

XX 17-JUL-1992; 92US-00916767.

XX (COMP-) COMPETITIVE TECHNOLOGIES INC.

XX Al-Obeidi F, Hruby VJ, Hadley ME;

XX WPI; 1997-502371/46.

XX New cyclic peptide analogues of alpha-melanocyte stimulating hormone -
 for treatment of hypopigmentation and for darkening human hair or animal
 XX pelts, have prolonged action.

XX Example 6; Col 29-30; 23pp; English.

XX This peptide is a synthetic, linear analogue of human alpha melanocyte
 CC stimulating hormone (alpha-MSH). It is used to stimulate mammalian
 CC melanocytes to produce integumental melanin, i.e. to treat
 CC hypopigmentation such as pityriasis alba, tinea versicolor, vitiligo,
 CC idiopathic guttae hypomelanosis and nevus depigmentosus. It can also be
 CC used to darken grey hair and to increase the value of animal pelts. The
 CC peptide can replace alpha-MSH, or its Nle4 analogue, in all diagnostic,
 CC therapeutic and research applications, e.g. localisation/
 CC characterisation of melanoma cells, and as ligand to deliver anticancer
 CC or diagnostic agents. Also treatment with the peptide darkens the skin
 CC without any exposure to UV light. In bioassays on frog skin and on lizard
 CC skin, the present peptide had melanocyte dispersion activities of 0.7 and
 CC 8.0, respectively, relative to native alpha-MSH having activities of 1.0

CC in both bioassay systems. The peptide did not show prolonged activity in
 CC either assay

XX Sequence 7 AA;

SQ Query Match 100.0%; Score 36; DB 2; Length 7;
 Best Local Similarity 83.3%; Pred. No. 1.4e+06;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DHXRWK 6
 Db 2 DHFRWK 7

RESULT 13

AAW29337
 ID AAW29337 standard; peptide; 7 AA.

XX AC AAW29337;

XX DT 13-JAN-1998 (first entry)

XX DE Cyclic human alpha-melanocyte stimulating hormone analogue 17.

XX KW Human alpha-melanocyte stimulating hormone; analogue; alpha-MSH;
 KW alpha-melanotropin; proopiomelanocortin; hypopigmentation;
 KW pityriasis alba; tinea versicolor; vitiligo;
 KW idiopathic guttae hypomelanosis; nevus depigmentosus; animal pelt;
 KW cyclic.

XX OS Synthetic.

OS Homo sapiens.

XX FH Key Location/Qualifiers

FT Modified-site 1 /label= Nle

FT Modified-site 2 /note= "N-acetyl-norleucine"

FT Modified-site 2 /note= "The side-chain carboxyl group of Asp at position
 2 forms a lactam bridge with the side-chain amino group
 of Lys at position 7"

FT Misc-difference 4 /note= "D-form residue"

FT Modified-site 7

FT /note= "The side-chain amino group of Lys at position 7
 forms a lactam bridge with the side-chain carboxyl group
 of Asp at position 2, C-terminal amide"

XX US5674839-A.

XX PD 07-OCT-1997.

XX PF 06-DEC-1994; 94US-00349902.

XX PR 22-MAY-1987; 87US-00053229.

XX PR 29-JUN-1988; 88US-00212807.

XX PR 13-NOV-1990; 90US-00611456.

XX PR 17-JUL-1992; 92US-00916767.

XX (COMP-) COMPETITIVE TECHNOLOGIES INC.

XX Al-Obeidi F, Hruby VJ, Hadley ME;

XX WPI; 1997-502371/46.

XX New cyclic peptide analogues of alpha-melanocyte stimulating hormone -
 PT for treatment of hypo-pigmentation and for darkening human hair or animal
 PT pelts, have prolonged action.

XX Claim 1; Col 42; 23pp; English.

XX This peptide is a synthetic, cyclic analogue of human alpha melanocyte
 CC stimulating hormone (alpha-MSH). It is used to stimulate mammalian

CC melanocytes to produce integumental melanin, i.e. to treat
 CC hypopigmentation such as pityriasis alba, tinea versicolor, vitiligo,
 CC idiopathic guttae hypomelanosis and nevus depigmentosus. It can also be
 CC used to darken grey hair and to increase the value of animal pelts. The
 CC peptide can replace alpha-MSH, or its Nle4 analogue, in all diagnostic,
 CC therapeutic and research applications, e.g. localisation/
 CC characterisation of melanoma cells, and as ligand to deliver anticancer
 CC or diagnostic agents. Also treatment with the peptide darkens the skin
 CC without any exposure to UV light. In bioassays on frog skin and on lizard
 CC skin, the present peptide had melanocyte dispersion activities of 0.5 and
 CC 90.0, respectively, relative to native alpha-MSH having activities of 1.0
 CC in both bioassay systems and showed prolonged activity in both assays

SQ Sequence 7 AA;

Query Match 100.0%; Score 36; DB 2; Length 7;
 Best Local Similarity 83.3%; Pred. No. 1.4e+06;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DHXRWK 6
 Db 2 DHFRWK 7

RESULT 14

AAW29363
 ID AAW29363 standard; peptide; 7 AA.

XX AC AAW29363;

XX DT 13-JAN-1998 (first entry)

XX DE Cyclic human alpha-melanocyte stimulating hormone analogue 25.

XX KW Human alpha-melanocyte stimulating hormone; analogue; alpha-MSH;
 KW alpha-melanotropin; proopiomelanocortin; hypopigmentation;
 KW pityriasis alba; tinea versicolor; vitiligo;
 KW idiopathic guttae hypomelanosis; nevus depigmentosus; animal pelt;
 KW cyclic.

XX OS Synthetic.

OS Homo sapiens.

XX FH Key Location/Qualifiers

FT Modified-site 1 /label= Nle

FT Modified-site 2 /note= "N-acetyl-norleucine"

FT Modified-site 2 /note= "The side-chain carboxyl group of Asp at position
 2 forms a lactam bridge with the side-chain amino group
 of Lys at position 7"

FT Misc-difference 4 /note= "D-form residue"

FT Modified-site 7

FT /note= "C-terminal amide; the side-chain amino group of
 Lys-NH2 at position 7 forms a lactam bridge with the side
 -chain carboxyl group of Asp at position 2"

XX US5674839-A.

XX PD 07-OCT-1997.

XX PF 06-DEC-1994; 94US-00349902.

XX PR 22-MAY-1987; 87US-00053229.

XX PR 29-JUN-1988; 88US-00212807.

XX PR 13-NOV-1990; 90US-00611456.

XX PR 17-JUL-1992; 92US-00916767.

XX (COMP-) COMPETITIVE TECHNOLOGIES INC.

XX Al-Obeidi F, Hruby VJ, Hadley ME;

DR WPI; 1997-502371/46.
 XX New cyclic peptide analogues of alpha-melanocyte stimulating hormone -
 PT for treatment of hypo-pigmentation and for darkening human hair or animal
 PT pelts, have prolonged action.

XX Example 17; Col 37-38; 23pp; English.

XX This peptide is a synthetic, cyclic analogue of human alpha melanocyte
 CC stimulating hormone (alpha-MSH). It is used to stimulate mammalian
 CC melanocytes to produce integumental melanin, i.e. to treat
 CC hypopigmentation such as pityriasis alba, tinea versicolor, vitiligo,
 CC idiopathic guttae hypomelanosis and nevus depigmentosus. It can also be
 CC used to darken grey hair and to increase the value of animal pelts. The
 CC peptide can replace alpha-MSH, or its Nle4 analogue, in all diagnostic,
 CC therapeutic and research applications, e.g. localisation/
 CC characterisation of melanoma cells, and as ligand to deliver anticancer
 CC or diagnostic agents. Also treatment with the peptide darkens the skin
 CC without any exposure to UV light. In a bioassay on frog skin, the present
 CC peptide had a melanocyte dispersion activity of 5.0, relative to native
 CC alpha-MSH activity of 1.0 and also showed prolonged activity

XX Sequence 7 AA;

Query Match 100.0%; Score 36; DB 2; Length 7;
 Best Local Similarity 83.3%; Pred. No. 1.4e+06;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DHXRWK 6
 ||:||||
 Db 2 DHFRWK 7

RESULT 15

AAW29362
 ID AAW29362 standard; peptide; 7 AA.

AC AAW29362;

XX 13-JAN-1998 (first entry)

XX Linear human alpha-melanocyte stimulating hormone analogue 14.

XX Human alpha-melanocyte stimulating hormone; analogue; alpha-MSH;

KW alpha-melanotropin; proopiomelanocortin; hypopigmentation;

KW Pityriasis alba; tinea versicolor; vitiligo;

KW Idiopathic guttae hypomelanosis; nevus depigmentosus; animal pelt.

XX Synthetic.

OS Homo sapiens.

XX Key Location/Qualifiers

FT Modified-site 1 /label= Nle

FT /note= "N-acetyl norleucine"

FT Modified-site 7

FT /note= "C-terminal amide"

XX US5674839-A.

XX 07-OCT-1997.

XX 06-DEC-1994; 94US-00349902.

XX 22-MAY-1987; 87US-00053229.

XX 29-JUN-1988; 88US-00212807.

XX 13-NOV-1990; 90US-00611456.

XX 17-JUL-1992; 92US-00916767.

XX (COMP-) COMPETITIVE TECHNOLOGIES INC.

XX Al-Obeidi F, Hruby VJ, Hadley ME;

XX PI

XX

DR WPI; 1997-502371/46.

XX New cyclic peptide analogues of alpha-melanocyte stimulating hormone -
 PT for treatment of hypo-pigmentation and for darkening human hair or animal
 PT pelts, have prolonged action.

XX Example 10; Col 31; 23pp; English.

XX This peptide is a synthetic, linear analogue of human alpha melanocyte
 CC stimulating hormone (alpha-MSH). It is used to stimulate mammalian
 CC melanocytes to produce integumental melanin, i.e. to treat
 CC hypopigmentation such as pityriasis alba, tinea versicolor, vitiligo,
 CC idiopathic guttae hypomelanosis and nevus depigmentosus. It can also be
 CC used to darken grey hair and to increase the value of animal pelts. The
 CC peptide can replace alpha-MSH, or its Nle4 analogue, in all diagnostic,
 CC therapeutic and research applications, e.g. localisation/
 CC characterisation of melanoma cells, and as ligand to deliver anticancer
 CC or diagnostic agents. Also treatment with the peptide darkens the skin
 CC without any exposure to UV light. In bioassays on frog skin and on lizard
 CC skin, the present peptide had melanocyte dispersion activities of 0.004
 CC and 0.08, respectively, relative to native alpha-MSH having activities of
 CC 1.0 in both bioassay systems. The peptide also showed prolonged activity
 CC in the frog skin assay

XX Sequence 7 AA;

Query Match 100.0%; Score 36; DB 2; Length 7;
 Best Local Similarity 83.3%; Pred. No. 1.4e+06;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DHXRWK 6
 ||:||||
 Db 2 DHFRWK 7

RESULT 16

AAV02420
 ID AAV02420 standard; peptide; 7 AA.

AC AAV02420;

XX 12-JUL-1999 (first entry)

XX Somatostatin analogue peptide.

XX Metallo-construct; metal ion-binding backbone; cyclic;

KW biological function domain; conformational restriction; radiotherapeutic;

KW combinatorial chemistry.

XX Synthetic.

XX Key Location/Qualifiers

FT Modified-site 1 /label= Nle

FT /note= "acetylated"

FT Modified-site 2..7

FT /note= "linked by GGGC, GGC, GGGH or GGH"

FT Modified-site 4

FT /note= "D-form residue"

XX WO9640293-A1.

XX 19-DEC-1996.

XX 06-JUN-1996; 96WO-US009840.

XX 07-JUN-1995; 95US-00476652.

XX 05-JUN-1996; 96US-00660697.

XX (RHOM-) RHOMED INC.

XX Sharma SD;

XX PI

XX

DR WPI; 1997-077237/07.
XX Metallo-constructs comprising a metal ion-binding backbone for complexing
PT metals - and a biological function domain which may be converted from
PT inactive to active form on binding of the construct to a metal ion.
XX
PS Disclosure; Page 22; 142pp; English.
XX
XX The specification describes a metallo-construct, which may be a peptide,
CC comprising metal ion-binding backbone for complexing with a metal ion and
CC a biological function domain which is conformationally constrained upon
CC complexing the metal ion-binding backbone with a metal ion. The
CC peptide/metal ion complexes are less susceptible to proteolysis than the
CC uncomplexed peptide. The peptides lack conformational restriction if not
CC complexed to a metal ion, so that the uncomplexed peptides are either
CC inactive or low in potency. The complexed peptides may also exhibit
CC altered biodistribution profiles, rate of clearance from the body and
CC bioavailability. The constructs/peptides are useful as biological,
CC therapeutic, diagnostic imaging and radiotherapeutic agents, or in
CC combinatorial chemistry methods. The present cyclic peptide exemplifies
CC the peptides of the invention
XX
SQ Sequence 7 AA;
Query Match 100.0%; Score 36; DB 2; Length 7;
Best Local Similarity 83.3%; Pred. No. 1.4e+06;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Qy 1 DHXRWK 6
Db 2 DHFRWK 7
||:||||
||:||||
RESULT 17
AAW47816
ID AAW47816 standard; peptide; 7 AA.
XX
AC AAW47816;
XX
DT 08-DEC-1998 (first entry)
XX
DE Linear alpha-MSH analogue #7.
XX
KW Melanocyte stimulating hormone; MSH; melanotropin; pigmentation.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 1 /label= Nle
FT /note= "the N-terminal is acetylated"
FT
FT Misc-difference 4 /note= "D-form residue"
FT Modified-site 7 /note= "Lys-NH2"
FT
FT
FT US5714576-A.
XX
PN 03-FEB-1998.
XX
PD 07-APR-1997; 97US-00826676.
XX
PR 22-MAY-1987; 87US-00053229.
XX
PR 29-JUN-1988; 88US-00212807.
XX
PR 13-NOV-1990; 90US-00611456.
XX
PR 17-JUL-1992; 92US-00916767.
XX
PR 06-DEC-1994; 94US-00349902.
XX
XX (COMP-) COMPETITIVE TECHNOLOGIES INC.
XX
XX Al-Obeidi F, Hadley ME, Hruby VJ;
XX WPI; 1998-158351/14.
XX
DR

XX alpha-Melanotropin peptide analogues - useful for darkening skin or hair,
PT etc.
XX
PS Claim 2; Col 43; 24pp; English.
XX
XX The sequence is a specifically claimed example of new linear analogues of
CC alpha-melanocyte stimulating hormone (alpha-MSH) having the general
CC formula AAl-Nle-AA2-His-AA3-Arg-Trip-AA4-AA5, in which: AAl = Ac (i.e.
CC acetyl) or Ac-Ser-Tyr-Ser; AA2 = Glu or Asp; AA3 = D-Phe or Phe; AA4 =
CC Lys, Gly, Orn (i.e. ornithine), Dab (i.e. 2,4-diaminobutyric acid) or Dpr
CC (i.e. 2,3-diaminopropionic acid); and AA5 = NH2 or Gly-Pro-Val-NH2. These
CC analogues can be administered trans-cutaneously (e.g. topically) to treat
CC skin hypo-pigmentation disorders, to darken grey hair, to enhance the
CC value of animal pelts by darkening, or to darken the skin in the absence
CC of solar or UV radiation. They could also be used in diagnostic or
CC research applications for detecting melanoma cells, and for targeting
CC drugs or diagnostic agents to tissues with a high concentration of
CC melanotropin receptors
XX
SQ Sequence 7 AA;
Query Match 100.0%; Score 36; DB 2; Length 7;
Best Local Similarity 83.3%; Pred. No. 1.4e+06;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
Qy 1 DHXRWK 6
Db 2 DHFRWK 7
||:||||
||:||||
RESULT 18
AAW47823
ID AAW47823 standard; peptide; 7 AA.
XX
AC AAW47823;
XX
DT 08-DEC-1998 (first entry)
XX
DE Linear alpha-MSH analogue #14.
XX
KW Melanocyte stimulating hormone; MSH; melanotropin; pigmentation.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 1 /label= Nle
FT /note= "the N-terminal is acetylated"
FT
FT Modified-site 7 /note= "Lys-NH2; i.e. the C-terminal is amidated"
FT
FT US5714576-A.
XX
PN 03-FEB-1998.
XX
PD 07-APR-1997; 97US-00826676.
XX
PR 22-MAY-1987; 87US-00053229.
XX
PR 29-JUN-1988; 88US-00212807.
XX
PR 13-NOV-1990; 90US-00611456.
XX
PR 17-JUL-1992; 92US-00916767.
XX
PR 06-DEC-1994; 94US-00349902.
XX
XX (COMP-) COMPETITIVE TECHNOLOGIES INC.
XX
XX Al-Obeidi F, Hadley ME, Hruby VJ;
XX WPI; 1998-158351/14.
XX
XX alpha-Melanotropin peptide analogues - useful for darkening skin or hair,
PT etc.
XX
XX

PS Claim 2; Col 43; 24pp; English.

XX This sequence is a specifically claimed example of new linear analogues of
CC alpha-melanocyte stimulating hormone (alpha-MSH) having the general
CC formula A1-Nle-AA2-His-AA3-Arg-Tyr-AA4-AA5, in which: A1 = Ac (i.e.
CC acetyl) or Ac-Ser-Tyr-Ser; AA2 = Glu or Asp; AA3 = D-Phe or Phe; AA4 =
CC Lys, Gly, Orn (i.e. ornithine), Dab (i.e. 2,4-diaminobutyric acid) or Dpr
CC (i.e. 2,3-diaminopropionic acid); and AA5 = NH2 or Gly-Pro-Val-NH2. These
CC analogues can be administered trans-cutaneously (e.g. topically) to treat
CC skin hypo-pigmentation disorders, to darken grey hair, to enhance the
CC value of animal pelts by darkening, or to darken the skin in the absence
CC of solar or UV radiation. They could also be used in diagnostic or
CC research applications for detecting melanoma cells, and for targeting
CC drugs or diagnostic agents to tissues with a high concentration of
CC melanotropin receptors

XX SQ Sequence 7 AA;

Query Match 100.0%; Score 36; DB 2; Length 7;
Best Local Similarity 83.3%; Pred. NO. 1.4e+06;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
Db 2 DHFRWK 7

RESULT 19

AAW50292
ID AAW50292 standard; peptide; 7 AA.

XX AC AAW50292;

XX DT 08-JUL-1998 (first entry)

XX DE Cyclic peptide melanocortin analogue.

XX Antagonist; agonist; melanocortin receptor; MC3; MC4; MC1; MCS; lactam;
KW cyclic; melanocyte stimulating hormone; MSH; melanoma;
KW frog skin bioassay.

XX OS Synthetic.

XX FH Key Location/Qualifiers

FT Modified-site 1 /label= Nle

FT /note= "Norleucine, N-terminal acetyl"

FT Modified-site 2 /note= "Carboxyl side-chain of Asp2 forms a lactam bridge

FT with the amino side-chain of Lys7"

FT Modified-site 4 /note= "D-form residue, 2-naphthylalanine"

FT Modified-site 7 /note= "Amino side-chain of Lys7 forms a lactam bridge

FT with the carboxyl side-chain of Asp2"

XX US5731408-A.

XX 24-MAR-1998.

XX 10-APR-1995; 95US-00420972.

XX 10-APR-1995; 95US-00420972.

XX (UYAR-) UNIV ARIZONA.

XX Sharma SD, Hadley ME, Hruby VJ;

XX WPI; 1998-216550/19.

XX Cyclic peptide melanocortin analogues - useful as melanocortin receptor
XX antagonists or agonists e.g. for research.

XX PS

PS Claim 1; Col 9; 6pp; English.

XX This sequence represents a specifically claimed cyclic lactam peptide of
CC formula Ac-Nle-Asp-His-X-Arg-Tyr-Lys-NH2 (I), (Asp and Lys are joined to
CC make the ring). X = D-2'-naphthylalanine (Ia) or D-p-iodo-phenylalanine
CC (Ib). These cyclic peptides are potent and specific antagonists of the
CC two neural melanocortin receptors and of the peripheral receptor. (Ia) is
CC a potent antagonist of the MC3 and MC4 receptors with partial agonist
CC activity, and a full agonist of the MC1 and MC5 receptors; (Ib) is a
CC potent antagonist of the MC3 and MC4 receptors with partial agonist
CC activity. Both peptides have antagonist activities in the classical frog
CC skin bioassay for pigmentation at the MC1 receptor. (I) are used for
CC studying the physiological role of these receptors and possibly for
CC blocking physiological responses to endogenous melanotropin, e.g. for
CC treating melanoma

XX SQ Sequence 7 AA;

Query Match 100.0%; Score 36; DB 2; Length 7;
Best Local Similarity 100.0%; Pred. NO. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
Db 2 DHXRWK 7

RESULT 20

AAW50293
ID AAW50293 standard; peptide; 7 AA.

XX AC AAW50293;

XX DT 08-JUL-1998 (first entry)

XX DE Cyclic peptide melanocortin analogue.

XX Antagonist; agonist; melanocortin receptor; MC3; MC4; MC1; MCS; lactam;
KW melanocyte stimulating hormone; MSH; melanoma; cyclic frog skin bioassay.

XX OS Synthetic.

XX FH Key Location/Qualifiers

FT Modified-site 1 /label= Nle

FT /note= "Norleucine, N-terminal acetyl"

FT Modified-site 2 /note= "Carboxyl side-chain of Asp2 forms a lactam bridge

FT with the amino side-chain of Lys7"

FT Modified-site 4 /note= "D-form residue, para-iodo-phenylalanine"

FT Modified-site 7 /note= "Amino side-chain of Lys7 forms a lactam bridge

FT with the carboxyl side-chain of Asp2"

XX US5731408-A.

XX 24-MAR-1998.

XX 10-APR-1995; 95US-00420972.

XX 10-APR-1995; 95US-00420972.

XX (UYAR-) UNIV ARIZONA.

XX Sharma SD, Hadley ME, Hruby VJ;

XX WPI; 1998-216550/19.

XX Cyclic peptide melanocortin analogues - useful as melanocortin receptor
XX antagonists or agonists e.g. for research.

XX Claim 1; Col 9; 6pp; English.

XX PS

XX This sequence represents a specifically claimed cyclic lactam peptide of
 CC formula Ac-Nle-Asp-His-X-Arg-Trip-Lys-NH₂ (I), (Asp and Lys are joined to
 CC make the ring). X = D-2'-naphthylalanine (Ia) or D-p-iodo-phenylalanine
 CC (Ib). These cyclic peptides are potent and specific antagonists of the
 CC two neural melanocortin receptors and of the peripheral receptor. (Ia) is
 CC a potent antagonist of the MC3 and MC4 receptors with partial agonist
 CC activity, and a full agonist of the MC1 and MC5 receptors; (Ib) is a
 CC potent antagonist of the MC3 and MC4 receptors with partial agonist
 CC activity. Both peptides have antagonist activities in the classical frog
 CC skin bioassay for pigmentation at the MC1 receptor. (I) are used for
 CC studying the physiological role of these receptors and possibly for
 CC blocking physiological responses to endogenous melanotropin, e.g. for
 CC treating melanoma

XX Sequence 7 AA;
 SQ Query Match 100.0%; Score 36; DB 2; Length 7;
 Best Local Similarity 83.3%; Pred. No. 1.4e+06;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
 Db 2 DHFRWK 7
 ||:||||
 ||:||||

RESULT 21
 AAB11885
 ID AAB11885 standard; peptide; 7 AA.
 XX AC AAB11885;
 XX DT 14-NOV-2000 (first entry)
 XX Alpha-MSH antagonist peptide, SEQ ID NO:5.

XX Alpha-MSH antagonist; alpha melanocyte stimulating hormone; human; POMC;
 KW proopiomelanocortin peptide; peripheral energy homeostasis;
 KW lipid mobilisation; lipolysis; lipid sequestration; body weight disorder;
 KW obesity; cachexia; anorexia; bulimia; wasting disorder; cancer;
 KW cardiovascular disease; type II diabetes; atypical depression;
 KW heart failure; immune system weakness; reproductive disorder;
 KW amenorrhoea; side effect; cyclic.

XX Synthetic.
 XX Key Location/Qualifiers
 FT Modified-site 1 /label= Nle
 FT /note= "Norleucine; N-terminal acetyl"
 FT Modified-site 2 /note= "The side chain carboxyl group of the Asp"
 FT Modified-site 4 /note= "Naphthylalanine; D-form residue"
 FT Modified-site 7 /note= "C-terminal amide"

XX WO200003658-A1.
 XX 15-JUN-2000.
 XX 09-DEC-1999; 99WO-US029337.
 XX 09-DEC-1998; 98US-0111581P.
 XX 29-JUL-1999; 99US-0146299P.
 XX 29-JUL-1999; 99US-0146300P.
 XX 29-JUL-1999; 99US-0146301P.
 XX 29-JUL-1999; 99US-0146302P.
 XX 29-JUL-1999; 99US-0146303P.
 XX 29-JUL-1999; 99US-0146304P.
 XX 29-JUL-1999; 99US-0146305P.
 XX 29-JUL-1999; 99US-0146306P.
 XX 12-AUG-1999; 99US-00374827.

XX (ROOS-) ROOSEVELT INST ELEANOR.
 PA (OKLA-) OKLAHOMA MEDICAL RES FOUND.
 XX Brennan MB, Hochgeschwender U;
 PI WPI; 2000-423155/36.
 DR Regulating metabolism with pro-opiomelanocortin compounds, useful e.g.
 XX for treating obesity, administered peripherally to minimize effects on
 PT the central nervous system.
 XX Claim 321; Page 138; 168pp; English.

XX The invention relates to methods and compositions for the regulation of
 CC body weight, and for the treatment of associated disorders, comprising
 CC the administration of a proopiomelanocortin (POMC) compound to peripheral
 CC tissues such that delivery to the central nervous system is minimised.
 CC The amount of POMC compound used is insufficient to alter appetite and is
 CC preferably in the range 0.1 microgram-10 mg/kg. The primary aim of the
 CC invention is therefore to effect weight regulation via the control of the
 CC lipid mobilisation and sequestration in adipose tissue (peripheral
 CC pathways of energy homeostasis) rather than via appetite modification
 CC (central pathways of energy homeostasis). The POMC compounds of the
 CC invention regulate fat stores in adipose tissue by altering free fatty
 CC acid uptake and/or lipolysis. The compounds can be used to treat or
 CC prevent disorders of body weight such as obesity, anorexia, bulimia,
 CC cachexia and wasting disorders. They can be used to treat disorders that
 CC can be associated with obesity (such as cardiovascular disease, certain
 CC cancers, type II diabetes and atypical depression), and disorders that
 CC can be associated with low body weight (such as heart failure, immune
 CC system weakness, amenorrhoea and depression). They can also be used to
 CC treat reproductive disorders and the undesirable body weight changes that
 CC can be side effects of certain pharmaceuticals. The compounds of the
 CC invention include melanocyte stimulatory hormone (MSH) analogues. MSH
 CC agonists reduce body weight, while MSH antagonists increase body weight.
 CC The invention provides alpha-MSH peptide analogues (AAB11841-B11886) and
 CC also discloses a Pomc knockout mouse for the study of peripheral and
 CC central energy homeostasis pathways. Sequences AAB11885-B11886 represent
 XX alpha-MSH antagonists of the invention

SQ Sequence 7 AA;
 Query Match 100.0%; Score 36; DB 3; Length 7;
 Best Local Similarity 100.0%; Pred. No. 1.4e+06;
 Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
 Db 2 DHXRWK 7
 ||:||||
 ||:||||

RESULT 22
 AAY53557
 ID AAY53557 standard; peptide; 7 AA.
 XX AC AAY53557;
 XX 15-FEB-2000 (first entry)
 XX Melanocortin receptor ligand MT-II.
 DE Ligand; melanocortin receptor; alpha-melanocyte stimulating hormone; MSH;
 KW neurophysiology; behavioural pattern; neurology; cardiovascular;
 KW metabolism; sexual dysfunction; nerve damage; therapy; cyclic.
 XX Synthetic.
 XX Key Location/Qualifiers
 FT Modified-site 1 /label= Nle
 FT /note= "Nor-leucine; acylated N-terminus"
 FT Modified-site 2

FT FT /note= "side chain carboxyl of this residue is linked to
FT FT the side chain amide of the Lys at position 7 by a lactam
FT FT bond to form a cyclic structure"
FT FT
FT FT Misc-difference 4 /note= "D-form residue"
FT FT
FT FT Modified-site 7 /note= "Amidated C-terminus; side chain amide of this
FT FT residue is linked to the side chain carboxyl of the Asp
FT FT at position 2 by a lactam bond to form a cyclic
FT FT structure"
XX XX
PN WO9954358-A1.
XX
XX 28-OCT-1999.
XX
XX 19-APR-1999; 99WO-GB001195.
XX
XX 17-APR-1998; 98GB-00008229.
XX
XX (QUAD-) QUADRANT HOLDINGS CAMBRIDGE LTD.
XX
XX Adan RAH, Giopen WH;
XX
XX WPI; 2000-013231/01.
XX
XX New peptides that selectively interact with melanocortin (MC) receptors,
PT PT useful for treating disorders associated with MC receptors e.g.
PT PT neurological and behavioral disorders.
XX XX
XX Example 1; Page 9; 20pp; English.
XX
XX Peptides (AAY53555)-(AAY53563) represent synthetic ligands that
CC CC selectively interact with melanocortin (MC) receptors, and exhibit
CC CC biological activity in vivo. The peptides are modified from alpha-
CC CC melanocyte stimulating hormone (alpha-MSH) and show distinct
CC CC neurophysiological effects displayed as behavioural patterns. The
CC CC peptides are useful for treating disorders associated with MC receptors,
CC CC especially neurological, behavioural, cardiovascular, metabolic, sexual
CC CC dysfunction, or nerve damage caused by other therapy. The peptides are
CC CC specific for MC receptors, especially MC3, MC4 and MC5 receptors, and
CC CC their activity has been characterized in vivo
XX XX
SQ Sequence 7 AA;

Query Match 100.0%; Score 36; DB 3; Length 7;
Best Local Similarity 83.3%; Pred. NO. 1.4e+06;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
DB 2 DHFRWK 7
||:||||
||:||||

RESULT 23
AAY53562
ID AAY53562 standard; peptide; 7 AA.
XX
AC AAY53562;
XX
XX 15-FEB-2000 (first entry)
XX
XX Melanocortin receptor ligand SHU91119.
DE
XX
XX Ligand; melanocortin receptor; alpha-melanocyte stimulating hormone; MSH;
KW neurophysiology; behavioural pattern; neurology; cardiovascular;
KW metabolism; sexual dysfunction; nerve damage; therapy; cyclic.
XX
XX Synthetic.
XX
XX Key Location/Qualifiers
FH Modified-site 1 /label= Nle
FT /note= "Nor-leucine; acylated N-terminus"
FT FT

FT Modified-site 2 /note= "side chain carboxyl of this residue is linked to
FT FT the side chain amide of the Lys at position 7 by a lactam
FT FT bond to form a cyclic structure"
FT FT
FT FT Modified-site 4 /label= Nal
FT FT /note= "Naphthylalanine; D-form residue"
FT FT
FT FT Modified-site 7 /note= "Amidated C-terminus; side chain amide of this
FT FT residue is linked to the side chain carboxyl of the Asp
FT FT at position 2 by a lactam bond to form a cyclic
FT FT structure"
XX XX
PN WO9954358-A1.
XX
XX 28-OCT-1999.
XX
XX 19-APR-1999; 99WO-GB001195.
XX
XX 17-APR-1998; 98GB-00008229.
XX
XX (QUAD-) QUADRANT HOLDINGS CAMBRIDGE LTD.
XX
XX Adan RAH, Giopen WH;
XX
XX WPI; 2000-013231/01.
XX
XX New peptides that selectively interact with melanocortin (MC) receptors,
PT PT useful for treating disorders associated with MC receptors e.g.
PT PT neurological and behavioral disorders.
XX XX
XX Example 1; Page 9; 20pp; English.
XX
XX Peptides (AAY53555)-(AAY53563) represent synthetic ligands that
CC CC selectively interact with melanocortin (MC) receptors, and exhibit
CC CC biological activity in vivo. The peptides are modified from alpha-
CC CC melanocyte stimulating hormone (alpha-MSH) and show distinct
CC CC neurophysiological effects displayed as behavioural patterns. The
CC CC peptides are useful for treating disorders associated with MC receptors,
CC CC especially neurological, behavioural, cardiovascular, metabolic, sexual
CC CC dysfunction, or nerve damage caused by other therapy. The peptides are
CC CC specific for MC receptors, especially MC3, MC4 and MC5 receptors, and
CC CC their activity has been characterized in vivo
XX XX
SQ Sequence 7 AA;

Query Match 100.0%; Score 36; DB 3; Length 7;
Best Local Similarity 100.0%; Pred. NO. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
DB 2 DHXRWK 7
||:||||
||:||||

RESULT 24
AAY53558
ID AAY53558 standard; peptide; 7 AA.
XX
AC AAY53558;
XX
XX 15-FEB-2000 (first entry)
XX
XX Melanocortin receptor ligand D-Tyr-Met-II.
DE
XX
XX Ligand; melanocortin receptor; alpha-melanocyte stimulating hormone; MSH;
KW neurophysiology; behavioural pattern; neurology; cardiovascular;
KW metabolism; sexual dysfunction; nerve damage; therapy; cyclic.
XX
XX Synthetic.
XX
XX Key Location/Qualifiers
FH Modified-site 1
FT

```

FT FT /label= Nle
FT FT /note= "Nor-leucine; acylated N-terminus"
FT Modified-site 2
FT /note= "side chain carboxyl of this residue is linked to
FT the side chain amide of the Lys at position 7 by a lactam
FT bond to form a cyclic structure"
FT Misc-difference 4
FT /note= "D-form residue"
FT Modified-site 7
FT /note= "Amidated C-terminus; side chain amide of this
FT residue is linked to the side chain carboxyl of the Asp
FT at position 2 by a lactam bond to form a cyclic
FT structure"
XX WO9954358-A1.
XX
XX PD 28-OCT-1999.
XX
XX PF 19-APR-1999; 99WO-GB001195.
XX
XX PR 17-APR-1998; 98GB-00008229.
XX
XX PA (QUAD-) QUADRANT HOLDINGS CAMBRIDGE LTD.
XX
XX PI Adan RAH, Gispen WH;
XX
XX DR WPI; 2000-013231/01.
XX
XX New peptides that selectively interact with melanocortin (MC) receptors,
XX useful for treating disorders associated with MC receptors e.g.
XX neurological and behavioral disorders.
XX
XX Claim 1; Page 11; 20pp; English.
XX
XX Peptides (AAV5355)-(AAV53563) represent synthetic ligands that
XX selectively interact with melanocortin (MC) receptors, and exhibit
XX biological activity in vivo. The peptides are modified from alpha-
XX melanocyte stimulating hormone (alpha-MSH) and show distinct
XX neurophysiological effects displayed as behavioural patterns. The
XX peptides are useful for treating disorders associated with MC receptors,
XX especially neurological, behavioural, cardiovascular, metabolic, sexual
XX dysfunction, or nerve damage caused by other therapy. The peptides are
XX specific for MC receptors, especially MC3, MC4 and MC5 receptors, and
XX their activity has been characterized in vivo
XX
XX Sequence 7 AA;
XX
XX Query Match 100.0%; Score 36; DB 3; Length 7;
XX Best Local Similarity 83.3%; Pred. No. 1.4e+06;
XX Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
XX
XX QY 1 DHXRWK 6
XX |||||
XX 2 DHYRWK 7
XX
XX Db
XX
XX RESULT 25
XX AAV5052
XX ID AAY80502 standard; peptide; 7 AA.
XX
XX AC AAY80502;
XX
XX DX 06-JUN-2000 (first entry)
XX
XX DE Human [Nle4,Asp5,D-Phe7,Lys10]-alpha MSH(4-10).
XX
XX KW Vulnerary; dermatological; antiinflammatory; scarring; human; wounds;
XX alpha-melanocyte stimulating hormone; proinflammatory cytokine inhibitor;
XX nitric oxide synthase regulator; antiinflammatory IL-10 synthesis;
XX pulmonary fibrosis; trauma; intestinal obstruction; vision; hearing.
XX
XX OS Homo sapiens.
XX

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FH Key Modified-site Location/Qualifiers
FT 1 /label= Nle
FT /note= "Norleucine"
FT Misc-difference 4
FT /note= "D-form residue"
XX WO200004873-A1.
XX
XX PD 03-FEB-2000.
XX
XX PF 22-JUL-1999; 99WO-GB002388.
XX
XX PR 22-JUL-1998; 98GB-00015822.
XX
XX PR 06-AUG-1998; 98GB-00017143.
XX
XX (SMIN) SMITH & NEPHEW PLC.
XX
XX PI Ferguson MWJ, Chettibi S;
XX
XX DR WPI; 2000-195076/17.
XX
XX Use of a neuropeptide for prevention and treatment of scars and chronic
XX wounds.
XX
XX PS Claim 2; Page 38; 44pp; English.
XX
XX The invention relates to the use of a melanocyte stimulating hormone
XX (MSH), analogue or functional fragment in the treatment of scarring. This
XX sequence represents an analogue of the human alpha-MSH. MSH is an
XX inhibitor of proinflammatory cytokine production, a regulator of nitric
XX oxide synthase and a stimulator of antiinflammatory IL-10 synthesis. MSH,
XX or its analogues, is useful in the preparation of a composition for the
XX treatment of scarring and chronic wounds, and for improving the
XX appearance of existing scars, especially scarring associated with
XX pulmonary fibrosis, muscular and neuronal trauma, intestinal obstruction,
XX impaired vision and hearing (from scarring of corneal or tympanic
XX membrane) are treated using compositions containing the MSH analogues
XX
XX Sequence 7 AA;
XX
XX Query Match 100.0%; Score 36; DB 3; Length 7;
XX Best Local Similarity 83.3%; Pred. No. 1.4e+06;
XX Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
XX
XX QY 1 DHXRWK 6
XX |||||
XX 2 DHFRWK 7
XX
XX Db
XX
XX RESULT 26
XX AAY87805
XX ID AAY87805 standard; peptide; 7 AA.
XX
XX AC AAY87805;
XX
XX DX 24-AUG-2000 (first entry)
XX
XX DE Melanocortin receptor antagonist cyclic peptide #9.
XX
XX KW Antagonist; melanocortin; MC1 receptor; MC3 receptor; MC4 receptor;
XX MC5 receptor; cyclic; inhibitor; treatment; learning; memory; drug;
XX sexual behaviour; body temperature regulation; immune response;
XX blood-brain barrier.
XX
XX OS Synthetic.
XX
XX Key Modified-site Location/Qualifiers
FT 1 /label= Nle
FT /note= "acetylated norleucine"
FT Modified-site 2
FT /note= "This residue condenses with the Lys residue at
FT

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FT      position 7 to form a cyclic peptide"
FT      4
FT      /label= OTHER
FT      /note= "(2R,3S)-a-Me-Naphthylalanine"
FT      7
FT      Modified-site
FT      7
FT      /note= "This residue condenses with the Asp residue at
FT      position 2 to form a cyclic peptide. C-terminal amide"
FT      7
XX      US6054556-A.
XX      PN
XX      25-APR-2000.
XX      PD
XX      28-NOV-1997; 97US-00980238.
XX      PF
XX      10-APR-1995; 95US-00420972.
XX      PR
XX      (ARIZ-) ARIZONA BOARD OF REGENTS.
XX      PA
XX      Lim S, Yuan W, Huby VJ;
XX      PI
XX      WPI; 2000-349440/30.
XX      DR
XX      Cyclic polypeptide useful for inhibiting melanocortin receptors comprise
XX      PT sequences with modified amino acids.
XX      PS
XX      Claim 1; Col 11-12; 10pp; English.
XX      CC
XX      This invention describes novel cyclic polypeptides (I) for inhibiting
XX      CC melanocortin receptors. (I) are useful for inhibiting melanocortin
XX      CC receptors and may be useful in treatment of learning and memory
XX      CC processes, sexual behaviour, regulation of body temperature and immune
XX      CC response and as a vehicle for drugs across the blood-brain barrier. They
XX      CC may also be used as research tools and for screening drugs. The peptides
XX      CC are selectively antagonistic for the melanocortin 1, 3, 4 and 5
XX      CC receptors. This sequence represents a melanocortin antagonist described
XX      CC in the invention
XX      CC
XX      SQ Sequence 7 AA;
XX
Query Match 100.0%; Score 36; DB 3; Length 7;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
Db 2 DHXRWK 7

RESULT 27
AAAY87808
ID AAY87808 standard; peptide; 7 AA.
XX AC
XX AAY87808;
XX DT
XX 24-AUG-2000 (first entry)
XX DE
XX Melanocortin receptor antagonist cyclic peptide #12.
XX Antagonist; melanocortin; MC1 receptor; MC3 receptor; MC4 receptor;
XX MC5 receptor; cyclic; inhibitor; treatment; learning; memory; drug;
XX sexual behaviour; body temperature regulation; immune response;
XX blood-brain barrier.
XX OS
XX Synthetic.
XX FH
XX Key Location/Qualifiers
FT Modified-site 1 /label= Nle
FT /note= "acetylated norleucine"
FT 2
FT Modified-site
FT /note= "This residue condenses with the Lys residue at
FT position 7 to form a cyclic peptide"
FT 4
FT Modified-site
FT /label= OTHER
FT /note= "(2R,3R)-a-Me-Naphthylalanine"

```

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FT      /label= OTHER
FT      7
FT      Modified-site
FT      7
FT      /note= "This residue condenses with the Asp residue at
FT      position 2 to form a cyclic peptide. C-terminal amide"
FT      7
XX      US6054556-A.
XX      PN
XX      25-APR-2000.
XX      PD
XX      28-NOV-1997; 97US-00980238.
XX      PF
XX      10-APR-1995; 95US-00420972.
XX      PR
XX      (ARIZ-) ARIZONA BOARD OF REGENTS.
XX      PA
XX      Lim S, Yuan W, Huby VJ;
XX      PI
XX      WPI; 2000-349440/30.
XX      DR
XX      Cyclic polypeptide useful for inhibiting melanocortin receptors comprise
XX      PT sequences with modified amino acids.
XX      PS
XX      Claim 1; Col 13-14; 10pp; English.
XX      CC
XX      This invention describes novel cyclic polypeptides (I) for inhibiting
XX      CC melanocortin receptors. (I) are useful for inhibiting melanocortin
XX      CC receptors and may be useful in treatment of learning and memory
XX      CC processes, sexual behaviour, regulation of body temperature and immune
XX      CC response and as a vehicle for drugs across the blood-brain barrier. They
XX      CC may also be used as research tools and for screening drugs. The peptides
XX      CC are selectively antagonistic for the melanocortin 1, 3, 4 and 5
XX      CC receptors. This sequence represents a melanocortin antagonist described
XX      CC in the invention
XX      CC
XX      SQ Sequence 7 AA;
XX
Query Match 100.0%; Score 36; DB 3; Length 7;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
Db 2 DHXRWK 7

RESULT 28
AAAY87804
ID AAY87804 standard; peptide; 7 AA.
XX AC
XX AAY87804;
XX DT
XX 24-AUG-2000 (first entry)
XX DE
XX Melanocortin receptor antagonist cyclic peptide #8.
XX Antagonist; melanocortin; MC1 receptor; MC3 receptor; MC4 receptor;
XX MC5 receptor; cyclic; inhibitor; treatment; learning; memory; drug;
XX sexual behaviour; body temperature regulation; immune response;
XX blood-brain barrier.
XX OS
XX Synthetic.
XX FH
XX Key Location/Qualifiers
FT Modified-site 1 /label= Nle
FT /note= "acetylated norleucine"
FT 2
FT Modified-site
FT /note= "This residue condenses with the Lys residue at
FT position 7 to form a cyclic peptide"
FT 4
FT Modified-site
FT /label= OTHER
FT /note= "(2R,3R)-a-Me-Naphthylalanine"

```


XX WPI; 2000-476223/41.
DR
XX Novel peptides derived from human anti-agouti-related polypeptide and
PT anti-agouti-signaling protein, useful for treating eating disorders, e.g.
PT obesity.
XX
XX Example 2; Page 81; 81pp; English.
PS
XX Agouti related peptides, their fragments, variants or derivatives may be
CC used as modulators of feeding behavior (e.g. to treat obesity) and to
CC generate anti-agouti-related polypeptide (AGRP) and anti-agouti-signaling
CC protein (ASP) antibodies. Nucleic acids encoding these peptides may be
CC used as hybridization probes in assays. The antibodies may be used to
CC inhibit the binding of the AGRP/ASP peptide to melanocortin receptors or
CC in vitro or in vivo diagnostics. This control peptide is an AGRP
CC analogue and was used in binding melanocortin receptor binding assays
XX
XX Sequence 7 AA;
SQ
Query Match 100.0%; Score 36; DB 3; Length 7;
Best Local Similarity 83.3%; Pred. No. 1.4e+06;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 1 DHXRWK 6
DB 2 DHFRWK 7
||:||||
RESULT 31
AAB29241
ID AAB29241 standard; peptide; 7 AA.
XX
XX AAB29241;
XX
XX 12-FEB-2001 (first entry)
DT
XX Melanocortin receptor ligand cyclic peptide analogue #40.
DE
XX Melanocortin receptor ligand; peptide analogue; cyclic; MC-4; MC-3;
KW obesity; body weight disorder; behaviour; memory; muscle atrophy;
KW cardiovascular function; inflammation; sepsis; sexual dysfunction;
KW nerve growth; foetal growth; CNS depression.
XX
XX Synthetic.
XX
XX Key Location/Qualifiers
FH Modified-site 1 /label= OTHER
FT /note= "Nor-leucine, N-terminal acetyl"
FT
FT Modified-site 2..7
FT /label= OTHER
FT /note= "molecule is cyclised"
FT
FT Modified-site 7
FT /label= OTHER
FT /note= "C-terminal amide"
FT
FT
XX WO200058361-A1.
XX
XX
XX 05-OCT-2000.
PD
XX
XX 21-MAR-2000; 2000WO-US007473.
XX
XX 29-MAR-1999; 99US-0126673P.
XX
XX (PROC) PROCTER & GAMBLE CO.
XX
XX Mazur AW, Wang F, Sheldon RJ, Ebetino RJ;
XX WPI; 2000-664909/64.
XX
XX New cyclopeptide analogs, useful as appetite modulators, are selective MC
PT -3 and MC-4 melanocortin receptor ligands.

XX Example 30; Page 46; 66pp; English.
PS
XX The present invention relates to a number of cyclic peptide analogues
CC which function as melanocortin receptor ligands. The sequences are given
CC in AAB29201-B29246. These are useful in the treatment of body weight
CC disorders including obesity, anorexia and cachexia. CNS depression,
CC behaviour and memory-related disorders, cardiovascular function, sexual
CC inflammation, sepsis, septic, cardiogenic and hypovolemic shock, sexual
CC dysfunction, erectile dysfunction, muscle atrophy, diseases associated
CC with nerve growth and repair and intrauterine foetal growth
XX
XX Sequence 7 AA;
SQ
Query Match 100.0%; Score 36; DB 3; Length 7;
Best Local Similarity 83.3%; Pred. No. 1.4e+06;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 1 DHXRWK 6
DB 2 DHYRWK 7
||:||||
RESULT 32
AAG65948
ID AAG65948 standard; peptide; 7 AA.
XX
XX AAG65948;
XX
XX 11-FEB-2002 (first entry)
DT
XX
XX Synthetic cyclic heptapeptide, melanotan II (MT-II).
DE
XX
XX MT-II; piperidine; anorectic; antidiabetic; vasotropic; hypotensive;
KW antileptic; antiarthritic; osteopathic; cytostatic; hepatotropic;
KW antidepressant; sedative; tranquilizer; antiaddictive; analgesic;
KW antipyretic; antiinflammatory; immunomodulator; antirheumatic; MC-4R;
KW dermatological; neuroprotective; nootropic; gynecological; tocolytic;
KW melanocortin receptor; melanotan II; cyclic.
XX
XX Synthetic.
XX
XX Key Location/Qualifiers
FH Modified-site 1 /label= Nle
FT /note= "norleucine, N-terminal acetylation"
FT
FT Peptide 2..7
FT /note= "cyclic"
FT
FT Misc-difference 4
FT /note= "D-form residue"
FT Modified-site 7
FT /note= "C-terminal amide"
FT
XX WO200170708-A1.
XX
XX 27-SEP-2001.
PD
XX
XX 20-MAR-2001; 2001WO-US008935.
XX
XX 23-MAR-2000; 2000US-0191442P.
PR
XX 20-OCT-2000; 2000US-0242265P.
PR
XX (MERI) MERCK & CO INC.
XX
XX Palucki BL, Barakat KJ, Guo L, Lai Y, Nargund RP, Park MK;
PI Pollard PG, Sebbat IK, Ye Z;
XX
XX WPI; 2001-648380/74.
DR
XX New substituted piperidines, useful as melanocortin receptor agonists for
PT treating e.g. obesity, diabetes and sexual dysfunction.
XX
XX Disclosure; Page 4; 220pp; English.
PS

XX The invention provides substituted piperidines (I) of specified formula,
 CC and their pharmaceutically acceptable salts. (I) are agonists of human
 CC melanocortin receptor, an in particular, are selective agonists of human
 CC melanocortin-4 receptor (MC-4R). (I) can be used to treat diseases or
 CC conditions responsive to the melanocortin receptor, obesity, diabetes
 CC mellitus, male or female sexual dysfunction and erectile dysfunction. (I)
 CC can also be used to treat hypertension, hyperlipidemia, osteoarthritis,
 CC cancer, gall bladder disease, sleep apnea, depression, anxiety, pain,
 CC compulsions, neuroses, insomnia/sleep disorder, substance abuse, pain,
 CC fever, inflammation, immunomodulation, rheumatoid arthritis, skin
 CC tanning, acne and other skin disorders. (I) can also be used as
 CC neuroprotective agents and for cognitive and memory enhancement including
 CC the treatment of Alzheimer's disease. The present sequence represents the
 CC sequence of a centrally acting alpha-melanocyte-stimulating hormone
 CC analog, melanotan II (MT-II). MT-II is a synthetic cyclic heptapeptide
 CC containing a melanocortin receptor binding region
 XX Sequence 7 AA;
 SQ

Query Match 100.0%; Score 36; DB 4; Length 7;
 Best Local Similarity 83.3%; Pred. No. 1.4e+06;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DHXRWK 6
 ||:||||
 Db 2 DHFRWK 7

RESULT 33
 AAB61545
 ID AAB61545 standard; peptide; 7 AA.
 XX
 AC AAB61545;
 XX
 DT 03-APR-2001 (first entry)
 XX
 DE alpha-melanocyte-stimulating hormone peptide.
 XX
 KW Alpha-melanocyte-stimulating hormone; alpha-MSH, vasotropic;
 KW sexual response stimulator; sexual dysfunction; erectile dysfunction.
 XX
 OS Unidentified.
 XX
 FH Key Location/Qualifiers
 FT Modified-site 1 /label= Nle
 FT /note= "N-terminal acetyl"; Norleucine"
 FT Modified-site 2
 FT /note= "Linked to residue 7 to form a cyclic peptide"
 FT Misc-difference 4
 FT /note= "D-form residue"
 FT Modified-site 7
 FT /note= "Linked to residue 2 to form a cyclic peptide"
 FT
 XX WO200100224-A1.
 XX
 PN 04-JAN-2001.
 XX
 PD 29-JUN-2000; 2000WO-US018217.
 XX
 PF 29-JUN-1999; 99US-0142346P.
 XX
 PR 05-APR-2000; 2000US-0194987P.
 XX
 PR 28-JUN-2000; 2000US-00606501.
 XX
 XX (PALA-) PALATIN TECHNOLOGIES INC.
 PA
 XX Blood CH, Shadiack AM, Bernstein JK, Herbert GW;
 PI
 XX WPI; 2001-137878/14.
 DR
 XX Novel melanocortin receptor-specific peptides useful for treating sexual
 FT dysfunction in mammals, including male sexual dysfunction such as
 FT erectile dysfunction, and female sexual dysfunction.
 PT

XX Claim 1; Page 23; 33pp; English.
 PS
 XX The present sequence is a peptide of alpha-melanocyte-stimulating hormone
 CC (alpha-MSH). alpha-MSH is a melanocortin receptor-specific peptide. This
 CC peptide can be used to produce a pharmaceutical composition, which can be
 CC used to stimulate sexual response in a mammal, to treat sexual
 CC dysfunction in mammal including male sexual dysfunction such as erectile
 CC dysfunction, and female sexual dysfunction
 XX Sequence 7 AA;
 SQ

Query Match 100.0%; Score 36; DB 4; Length 7;
 Best Local Similarity 83.3%; Pred. No. 1.4e+06;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DHXRWK 6
 ||:||||
 Db 2 DHFRWK 7

RESULT 34
 AAE29082
 ID AAE29082 standard; peptide; 7 AA.
 XX
 AC AAE29082;
 XX
 DT 27-JAN-2003 (first entry)
 XX
 DE Alpha-melanocyte-stimulating hormone analogue, melanotan-II peptide.
 XX
 KW N-acetylated piperidine derivative; melanocortin receptor; MC-4R; obesity;
 KW diabetes mellitus; sexual dysfunction; erectile dysfunction; insomnia;
 KW hypertension; gall bladder disease; hyperlipidaemia; immunomodulation;
 KW osteoarthritis; cancer; sleep disorder; depression; cognitive disorder;
 KW rheumatoid arthritis; neuroprotective disorder; Alzheimer's disease;
 KW anxiety; compulsions; inflammation; sleep apnoea; substance abuse; pain;
 KW impotence; fever; skin tanning; acne; skin disorder; dysmenorrhoea;
 KW alpha-melanocyte-stimulating hormone; melanotan-II; MT-II; therapy.
 XX
 OS Unidentified.
 XX
 FH Key Location/Qualifiers
 FT Modified-site 1 /label= Nle
 FT /note= "N-terminal acetyl"
 FT Misc-difference 2 /note= "Linked to Lys at position 7 to form a cyclic
 FT structure"
 FT Misc-difference 4 /note= "D-form residue"
 FT Modified-site 7 /note= "Linked to Asp at position 2 to form a cyclic
 FT structure; C-terminal amide"
 FT
 XX WO200268387-A2.
 XX
 PN 06-SEP-2002.
 XX
 PD 25-FEB-2002; 2002WO-US005623.
 XX
 PF 28-FEB-2001; 2001US-0272259P.
 XX
 PR 22-JUN-2001; 2001US-0300572P.
 XX
 XX (MERI) MERCK & CO INC.
 PA
 XX Goulet MT, Nargund RP, Sebhat IK, Ujjainwalla F, Walsh TF;
 PI Warner D, Young JR, Bakshi RK, Ye Z;
 XX WPI; 2002-759789/82.
 DR
 XX New 4-substituted N-acetylated piperidine derivatives useful for treating
 FT e.g. obesity.
 PT

XX PS Disclosure; Page 4; 138pp; English.

XX CC The invention relates to novel 4-substituted N-acylated piperidine derivatives which serve as agonists of human melanocortin receptor (MC-4R). The invention is used for the treatment or prevention of disorders, diseases or conditions responsive to the activation of MC-4R in a mammal e.g. obesity, diabetes mellitus, male or female sexual dysfunction, erectile dysfunction, hypertension, gall bladder disease, cancer, hyperlipidaemia, osteoarthritis, insomnia/sleep disorder, depression, anxiety, compulsions, neuroses, inflammation, sleep apnoea, substance abuse, pain, impotence, loss of libido, fever, immunomodulation, rheumatoid arthritis, skin tanning, acne and other skin disorders, neuroprotective disorder and cognitive disorders including the treatment of Alzheimer's disease, premature labour, sexual pain and dysmenorrhoea. The present sequence is alpha-melanocyte-stimulating hormone analogue, melanotan-II (MT-II) peptide used in the invention

XX CC Sequence 7 AA;

Query Match 100.0%; Score 36; DB 5; Length 7;
 Best Local Similarity 83.3%; Pred. No. 1.4e+06;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
 ||:||||
 Db 2 DHERWK 7

RESULT 35
 ABG94506
 ID ABG94506 standard; peptide; 7 AA.
 XX AC ABG94506;
 XX DT 27-NOV-2002 (first entry)
 XX DE Alpha-melanocyte-stimulating hormone (alpha-MSH) peptide analogue #2.
 XX KW Vasoactive intestinal polypeptide; VIP; female sexual dysfunction; vulva; vagina; vaginal atrophy; pain; intercourse; vaginal itching;
 XX KW vaginal dryness; sexual desire enhancement; female genitalia; frigidity;
 XX KW sexual aversion; menopausal state; post-menopausal state; sexual desire;
 XX KW sexual activity; multiple sclerosis; atherosclerosis; diabetes mellitus;
 XX KW peripheral neuropathy; autonomic neuropathy; anorgasmia; hypoxia;
 XX KW vaginal muscle tone; vaginal lubrication; collagen misdeposition;
 XX KW alpha-melanocyte-stimulating hormone; alpha-MSH; melanocortin peptide.
 XX OS Unidentified.
 XX PN US2002099003-A1.
 XX PD 25-JUL-2002.
 XX XX 13-AUG-2001; 2001US-00929818.
 XX XX 28-OCT-1997; 97US-00959057.
 XX XX 28-OCT-1997; 97US-00959064.
 XX XX 27-OCT-1998; 98US-00181316.
 XX XX 04-FEB-2000; 2000US-00498522.
 XX XX (WILSON) WILSON L F.
 XX XX (PLAC) PLACE V A.
 XX XX Wilson LF, Place VA;
 XX XX WPI; 2002-697729/75.
 XX XX Treating sexual dysfunction in females comprises administering vasoactive intestinal polypeptide or against to vagina and/or vulvar region.
 XX XX Disclosure; Page 10; 19pp; English.

CC The invention relates to a method for treating sexual dysfunction in females comprising administering a formulation comprising a vasoactive agent comprising a vasoactive intestinal polypeptide and/or agonist to the vagina and/or vulvar region. The method is used for preventing CC vaginal atrophy and pain during intercourse, for treating vaginal itching CC and dryness, for enhancing sexual desire and responsiveness in females CC and for maintaining improvement of the tissue health of the female CC genitalia. The method is also used for treating persistent or recurrent CC deficiency or absence of sexual fantasies and desire for sexual activity, CC frigidity, sexual aversion, menopausal or post-menopausal state, multiple CC sclerosis, atherosclerosis, peripheral neuropathy, autonomic neuropathy, CC diabetes mellitus, substance-induced decreases in sexual desire and CC responsiveness and primary and secondary anorgasmia. The formulation CC improves vaginal muscle tone and tissue health, increases vaginal CC lubrication and minimises collagen misdeposition resulting from hypoxia. CC This sequence represents an alpha-melanocyte-stimulating hormone (alpha-MSH) peptide analogue (also referred to as a melanocortin peptide), used CC as a vasoactive agent

XX CC Sequence 7 AA;

Query Match 100.0%; Score 36; DB 5; Length 7;
 Best Local Similarity 83.3%; Pred. No. 1.4e+06;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
 ||:||||
 Db 2 DHERWK 7

RESULT 36
 ABB76171
 ID ABB76171 standard; peptide; 7 AA.
 XX AC ABB76171;
 XX DT 22-JUL-2002 (first entry)
 XX DE Melanocortin stimulating hormone antagonist.
 XX KW Melanocortin stimulating hormone; MSH; human; diabetes; obesity;
 XX KW insulin resistance; antidiabetic; antagonist; cyclic.
 XX OS Synthetic.
 XX FH Key Location/Qualifiers
 XX FT Modified-site 1 /label= Nle
 XX FT Modified-site 1 /note= "N-terminal acetyl"
 XX FT Misc-difference 2 /note= "Linked to residue 7 to form cyclic peptide"
 XX FT Modified-site 4 /note= "D-form residue, naphthylalanine"
 XX FT Modified-site 7 /note= "C-terminal amide"
 XX FT Misc-difference 7 /note= "Linked to residue 2 to form cyclic peptide"
 XX XX WO200223184-A1.
 XX XX 21-MAR-2002.
 XX XX 13-SEP-2001; 2001WO-US028720.
 XX XX 13-SEP-2000; 2000US-0232292P.
 XX XX (ROOS-) ROOSEVELT INST ELEANOR.
 XX XX (OKLA-) OKLAHOMA MEDICAL RES FOUND.
 XX XX Brennan MB, Hochgeschwender U;
 XX XX WPI; 2002-404825/43.

XX Identifying compounds useful in regulating insulin resistance in obesity
PT and type II diabetes by using a proopiomelanocortin null mutant non-human
PT animal as a model.

XX
PS Disclosure; Page 27; 70pp; English.

XX
CC The present sequence is a cyclic analogue of human alpha-melanocortin
CC stimulating hormone (alpha-MSH). It is an alpha-MSH antagonist suitable
CC for use in a method of the invention. A claimed method of identifying
CC compounds useful in regulating insulin resistance in obesity and type II
CC diabetes involves administering a compound having MSH biological activity
CC to a genetically modified non-human animal that has a genetic
CC modification within 2 alleles of its Pomc locus that result in an absence
CC of proopiomelanocortin (Pomc) peptide activity, where administration of
CC the compound induces insulin resistance in the animal, and selecting
CC compounds that decrease insulin resistance in the animal. The compound
CC having MSH biological activity is MSH or its fragment, homologue, peptide
CC or non-peptide mimetic, or fusion protein. The compound to be evaluated
CC is preferably an MSH antagonist. A claimed method of decreasing insulin
CC resistance in a mammal involves administering an MSH antagonist,
CC especially an MSH fragment, homologue, mimetic or fusion protein having
CC antagonist action, a soluble MSH receptor, or an antibody that
CC selectively binds to MSH. A claimed method to treat diabetes associated
CC with insulin resistance comprises administering a composition comprising
CC an MSH antagonist that decreases insulin resistance

XX
SQ Sequence 7 AA;

Query Match 100.0%; Score 36; DB 5; Length 7;
Best Local Similarity 100.0%; Pred. No. 1.4e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
|||
D5 2 DHXRWK 7

RESULT 37
ABB76172
ID ABB76172 standard; peptide; 7 AA.

XX
AC ABB76172;

XX
DT 22-JUL-2002 (first entry)

XX
DE Melanocortin stimulating hormone antagonist.

XX
KW Melanocortin stimulating hormone; MSH; human; diabetes; obesity;
KW insulin resistance; antidiabetic; antagonist; cyclic.

XX
OS Synthetic.

XX
FH Key Location/Qualifiers

FT Modified-site 1 /label= Nle

FT Modified-site 1 /note= "N-terminal acetyl"

FT Misc-difference 2 /note= "Linked to residue 7 to form cyclic peptide"

FT Modified-site 4 /note= "Linked to residue 7 to form cyclic peptide"

FT Modified-site 7 /note= "D-form residue, para-iodo-phenylalanine"

FT Modified-site 7 /note= "C-terminal amide"

FT Misc-difference 7 /note= "Linked to residue 2 to form cyclic peptide"

XX
WO200223184-A1.

XX
PD 21-MAR-2002.

XX
PF 13-SEP-2001; 2001WO-US028720.

PR 13-SEP-2000; 2000US-0232292P.

XX
PA (ROOS-) ROOSEVELT INST ELEANOR.
PA (OKLA-) OKLAHOMA MEDICAL RES FOUND.

XX
PI Brennan MB, Hochgeschwender U;

XX
WPI; 2002-404825/43.

XX
CC Identifying compounds useful in regulating insulin resistance in obesity
CC and type II diabetes by using a proopiomelanocortin null mutant non-human
CC animal as a model.

XX
PS Disclosure; Page 27; 70pp; English.

XX
CC The present sequence is a cyclic analogue of human alpha-melanocortin
CC stimulating hormone (alpha-MSH). It is an alpha-MSH antagonist suitable
CC for use in a method of the invention. A claimed method of identifying
CC compounds useful in regulating insulin resistance in obesity and type II
CC diabetes involves administering a compound having MSH biological activity
CC to a genetically modified non-human animal that has a genetic
CC modification within 2 alleles of its Pomc locus that result in an absence
CC of proopiomelanocortin (Pomc) peptide activity, where administration of
CC the compound induces insulin resistance in the animal, and selecting
CC compounds that decrease insulin resistance in the animal. The compound
CC having MSH biological activity is MSH or its fragment, homologue, peptide
CC or non-peptide mimetic, or fusion protein. The compound to be evaluated
CC is preferably an MSH antagonist. A claimed method of decreasing insulin
CC resistance in a mammal involves administering an MSH antagonist,
CC especially an MSH fragment, homologue, mimetic or fusion protein having
CC antagonist action, a soluble MSH receptor, or an antibody that
CC selectively binds to MSH. A claimed method to treat diabetes associated
CC with insulin resistance comprises administering a composition comprising
CC an MSH antagonist that decreases insulin resistance

XX
SQ Sequence 7 AA;

Query Match 100.0%; Score 36; DB 5; Length 7;
Best Local Similarity 83.3%; Pred. No. 1.4e+06;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
|||
D5 2 DHXRWK 7

RESULT 38
AAO19482
ID AAO19482 standard; peptide; 7 AA.

XX
AC AAO19482;

XX
DT 11-DEC-2002 (first entry)

XX
DE Melanotan-II melanocortin receptor agonist.

XX
KW Melanocortin-4 receptor agonist; 4-substituted N-acylated piperidine;
KW derivative; obesity; diabetes; sexual dysfunction; cancer; inflammation;
KW anorectic; antidiabetic; vasotropic; hypotensive; antilipemic;
KW osteopathic; cytostatic; antidepressant; tranquilizer; antidiabetic;
KW analgesic; antipyretic; antirheumatic; antiarthritic; antiseborrhic;
KW dermatological; tocolytic; antiinflammatory; nootropic; neuroprotective;
KW gynaecological.

XX
OS Synthetic.

XX
FH Key Location/Qualifiers

FT Modified-site 1 /label= Nle

FT Cross-links 2. .7 /note= "N-terminal acetylated"

FT Misc-difference 4 /note= "cyclise the molecule"

FT	Modified-site	1
FT	/label= Nle	
FT	/note= "Norleucine, N-terminal acetyl"	
FT	Region	2..7
FT	/note= "Forms cyclic peptide"	
FT	Modified-site	7
FT	/note= "C-terminal amide"	
XX	WO200268388-A2.	
PN		
PD	06-SEP-2002.	
XX		
XX	25-FEB-2002; 2002WO-US005724.	
XX		
PR	28-FEB-2001; 2001US-0272258P.	
PR	22-JUN-2001; 2001US-0300118P.	
XX		
XX	(MERI) MERCK & CO INC.	
PA		
XX		
PI	Ujjainwalla F, Chu L, Goulet MT, Lee B, Warner D, Wyratt MJ;	
XX		
XX	WPI; 2002-706964/76.	
PPT	New 4-substituted N-acylated piperidine derivatives useful for treating	
PPT	e.g. obesity.	
XX		
PS	Disclosure; Page 4; 112pp; English.	
CC	The present invention relates to new 4-substituted acylated piperidine	
CC	derivatives or their salts. The invention is useful for the treatment or	
CC	prevention of disorders, diseases or conditions responsive to the	
CC	activation of the melanocortin-4 receptor in a mammal, e.g. obesity,	
CC	diabetes mellitus, male or female sexual dysfunction, and erectile	
CC	dysfunction, hypertension, hyperlipidaemia, osteoarthritis, cancer, gall	
CC	bladder disease, sleep apnoea, depression, anxiety, compulsion, neurosis,	
CC	insomnia/sleep disorder, substance abuse, pain, impotence, loss of	
CC	libido, fever, inflammation, immunomodulation, rheumatoid arthritis, skin	
CC	tannin, acne and other skin disorders, neuroprotective and cognitive and	
CC	memory enhancement including the treatment of Alzheimer's disease.	
CC	premature labour sexual pain and dysmenorrhoea. The compounds of the	
CC	invention are selective agonists of melanocortin-4 receptor. The present	
CC	amino acid sequence represents a cyclic melanotan-II (MT-II) peptide, as	
CC	described in the invention	
XX		
SQ	Sequence 7 AA;	
	Query Match	100.0%; Score 36; DB 5; Length 7;
	Best Local Similarity	83.3%; Pred. No. 1.4e+06;
	Matches	5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY	1 DHXRWK 6	
	:	
Dd	2 DHFRWK 7	
RESULT 40		
ABU08224	ID ABU08224 standard; peptide; 7 AA.	
XX	AC ABU08224;	
XX		
DT	20-AUG-2003 (first entry)	
XX	Synthetic sexual response-inducing peptide #1.	
DE	Sexual response; sexual dysfunction; erection; sexual receptivity;	
KW	psychogenic erectile dysfunction; libido enhancement.	
XX		
OS	Synthetic.	
XX		
Key	Location/Qualifiers	
FT	Misc-difference 1	
FT	/label= Nle	
FT		

FT Modified-site /note= "Norleucine"
 FT 1
 FT Misc-difference 4 /note= "N-terminal acetyl"
 FT 4
 FT Modified-site 5 /note= "D form residue"
 FT 5
 FT Modified-site 7 /note= "Chlorinated"
 FT 7
 FT Modified-site /note= "N terminal amide"
 FT 7

XX
 XX
 PN US2003036514-A1.
 XX

XX
 PD 20-FEB-2003.
 XX

XX
 PD 18-JUL-2002; 2002US-00198793.
 XX

XX
 PF 15-AUG-2001; 2001US-03123598.
 XX

XX
 PR (MANN//) MANN M.
 XX

XX
 PA (MANN//) MANN M A.
 XX

XX
 PI Mann M, Mann MA;
 XX

XX
 DR WPI; 2003-492124/46.
 XX

XX
 PT Bringing erection of the penis to an animal involves administering
 PT specific peptides.
 XX

XX
 PS Claim 1; Page 7; 8pp; English.
 XX

XX
 CC This invention relates to a novel method for bringing erection of the
 CC penis to an animal. This method involves administering synthetic peptides
 CC disclosed in the invention to a subject. The peptides and methods of the
 CC invention may have vasotropic activities. The peptides of the invention
 CC and methods using these peptides may be used to induce erection of the
 CC penis and may be used for diagnosis of psychogenic erectile dysfunction.
 CC The method enhances libido (either by overcoming psychogenic sexual
 CC dysfunction in males or bringing sexual receptivity in females) in
 CC animals. The present sequence represents a synthetic peptide of the
 CC invention which is shown to erection of the penis
 XX

SQ Sequence 7 AA;

Query Match 100.0%; Score 36; DB 7; Length 7;
 Best Local Similarity 83.3%; Pred. No. 1.4e+06;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
 ||:||||
 Db 2 DHFRWK 7

RESULT 41

AAAR65784
 ID AAR65784 standard; peptide; 8 AA.
 XX

XX
 AC AAR65784;
 XX

XX
 DT 25-MAR-2003 (revised)
 DT 22-JUN-1995 (first entry)
 XX

XX
 DE Cyclic peptide #2 for treatment of male psychogenic sexual dysfunction.
 XX Linear; cyclic; sexual response; psychogenic sexual dysfunction; male;
 KW penile erection; stomach discomfort.
 XX
 OS Synthetic.

XX
 XX Key Location/Qualifiers
 FH Modified-site 1 /label= Nle
 FT /note= "Acylated residue"
 FT 2

FT Modified-site

FT Misc-difference 4 /note= "Forms peptide linkage with Lys7"
 FT 4
 FT Modified-site 7 /note= "D-form residue"
 FT 7
 FT Modified-site 8 /note= "forms peptide linkage with Asp2"
 FT 8
 FT Modified-site /note= "Amidated C-terminal"
 FT 8

XX
 PN WO9422460-A1.
 XX

XX
 PD 13-OCT-1994.
 XX

XX
 PD 04-APR-1994; 94WO-US003677.
 XX

XX
 PR 05-APR-1993; 93US-00043159.
 XX

XX
 PA (UYPA) UNIVERSITY PATENTS INC.
 XX

XX
 PI Hadley ME;
 XX

XX
 DR WPI; 1994-332809/41.
 XX

XX
 PT Diagnosis and treatment of male psychogenic sexual dysfunction - by
 PT administering erectogenic amt. of specified hepta- to deca-peptide amide.
 XX

PS Claim 1; Page 20; 24pp; English.

XX
 CC The sequences given in AAR65782-88 are linear and cyclic peptides which
 CC may be used for bringing about a sexual response or for diagnosing
 CC psychogenic sexual dysfunction in males. These peptides specifically
 CC bring about penile erection, however at higher doses some stomach
 CC discomfort was noted. The peptides were prepared by standard methods of
 CC solid phase synthesis. (Updated on 25-MAR-2003 to correct PN field.)
 XX

SQ Sequence 8 AA;

Query Match 100.0%; Score 36; DB 2; Length 8;
 Best Local Similarity 83.3%; Pred. No. 1.4e+06;
 Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
 ||:||||
 Db 2 DHFRWK 7

RESULT 42

AAAR65788
 ID AAR65788 standard; peptide; 8 AA.
 XX

XX
 AC AAR65788;
 XX

XX
 DT 25-MAR-2003 (revised)
 DT 22-JUN-1995 (first entry)
 XX

XX
 DE Cyclic peptide #6 for treatment of male psychogenic sexual dysfunction.
 XX Linear; cyclic; sexual response; psychogenic sexual dysfunction; male;
 KW penile erection; stomach discomfort.
 XX
 OS Synthetic.

XX
 XX Key Location/Qualifiers
 FH Modified-site 1 /note= "Acylated residue"
 FT 2
 FT Modified-site 2 /label= Nle
 FT 3

XX
 FT Modified-site 3

XX
 FT Misc-difference 5 /note= "Forms peptide linkage with Lys8"
 FT 5
 FT Modified-site 8 /note= "D-form residue"
 FT 8

XX
 FT Modified-site /note= "forms peptide linkage with Asp3, amidated C-terminal"

XX WO9422460-A1.
 XX 13-OCT-1994.
 XX 04-APR-1994; 94WO-US003677.
 XX 05-APR-1993; 93US-00043159.
 XX (UYPA) UNIVERSITY PATENTS INC.
 XX Hadley ME;
 XX WPI; 1994-332809/41.
 XX Diagnosis and treatment of male psychogenic sexual dysfunction - by
 XX administering erectogenic amt. of specified hepta- to deca-peptide amide.
 XX Claim 1; Page 20; 24pp; English.
 XX The sequences given in AAR65782-88 are linear and cyclic peptides which
 XX may be used for bringing about a sexual response or for diagnosing
 XX psychogenic sexual dysfunction in males. These peptides specifically
 XX bring about penile erection, however at higher doses some stomach
 XX discomfort was noted. The peptides were prepared by standard methods of
 XX solid phase synthesis. (Updated on 25-MAR-2003 to correct PN field.)
 XX Sequence 8 AA;
 XX
 XX Query Match 100.0%; Score 36; DB 2; Length 8;
 XX Best Local Similarity 83.3%; Pred. No. 1.4e+06;
 XX Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 QY 1 DHXRWK 6
 DB ||:||||
 3 DHFRWK 8

RESULT 43
 AAW19927
 ID AAW19927 standard; peptide; 8 AA.
 AC AAW19927;
 XX 19-JAN-1998 (first entry)
 XX Erectogenic peptide #7.
 XX Erectogenic peptide; erectile dysfunction; penile erection;
 XX sexual dysfunction; testosterone; impotence; sexual response;
 XX oestrus cycle; coitus; artificial insemination; detumescence;
 XX ejaculation; cyclic.
 XX Synthetic.
 XX
 XX Key Location/Qualifiers
 XX Modified-site 1 /note= "N-terminal acetyl"
 XX Modified-site 2 /label= Nle
 XX Modified-site 3 /note= "the side chain carboxyl group of Asp3 forms a
 XX lactam bridge with the epsilon amino group of Lys-NH2 at
 XX position 8"
 XX Misc-difference 5 /note= "D-form residue"
 XX Modified-site 8 /note= "C-terminal amide, the epsilon amino group of Lys8
 XX -NH2 forms a lactam bridge with the side-chain carboxyl
 XX group of Asp at position 3"
 XX CA2158425-A.

PD 16-MAR-1997.
 XX 15-SEP-1995; 95CA-02158425.
 XX 15-SEP-1995; 95CA-02158425.
 XX (HADL/) HADLEY M E.
 XX Hadley ME;
 XX WPI; 1997-320151/30.
 XX Diagnosis and treatment of erectile dysfunction - by administering an
 XX erectogenic peptide containing the sequence Nle-Asp-His-D-Phe-Arg-Trp-
 XX Lys.
 XX Claim 1; Page 28; 32pp; English.
 XX These erectogenic peptides (AAW1921-7) are used in a novel method for
 XX inducing penile erection in an animal. They can be used, in conjunction
 XX with testosterone or another androgen, to treat impotence in elderly men
 XX whose testosterone levels are declining with age. The peptides also
 XX appear to have an effect of increasing sexual response in females. They
 XX may therefore be administered to increase libido in female animals of
 XX rare species in captivity at the proper time in their oestrus cycle to
 XX make them more receptive to coitus. They may also be administered to the
 XX male animal at the same time to induce the erectile response. The
 XX peptides may be used in artificial insemination programmes to encourage
 XX an animal, e.g. a stallion, to mount a mock female phantom used in the
 XX collection of sperm. The peptides invariably induce an erection in men at
 XX low doses (e.g. 1-10 mg) and without any detectable side effects when
 XX administered systemically. The peptides, at low doses, also allow
 XX detumescence following ejaculation
 XX Sequence 8 AA;
 XX
 XX Query Match 100.0%; Score 36; DB 2; Length 8;
 XX Best Local Similarity 83.3%; Pred. No. 1.4e+06;
 XX Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 QY 1 DHXRWK 6
 DB ||:||||
 3 DHFRWK 8

RESULT 44
 AAW19923
 ID AAW19923 standard; peptide; 8 AA.
 AC AAW19923;
 XX 19-JAN-1998 (first entry)
 XX Erectogenic peptide #3.
 XX Erectogenic peptide; erectile dysfunction; penile erection;
 XX sexual dysfunction; testosterone; impotence; sexual response;
 XX oestrus cycle; coitus; artificial insemination; detumescence;
 XX ejaculation; cyclic.
 XX Synthetic.
 XX
 XX Key Location/Qualifiers
 XX Modified-site 1 /label= Nle
 XX Modified-site 2 /note= "N-terminal acetyl"
 XX Modified-site 7 /note= "the side-chain carboxyl group of Asp2 forms a
 XX lactam bridge with the epsilon amino group of Lys at
 XX position 7"
 XX Misc-difference 4 /note= "D-form residue"
 XX Modified-site 7

FT /note= "the epsilon amino group of Lys7 forms a lactam
FT bridge with the side-chain carboxyl group of Asp at
FT position 2"
FT 8
FT /note= "C-terminal amide"
FT 8
XX CA2158425-A.
XX 16-MAR-1997.
XX 15-SEP-1995; 95CA-02158425.
XX 15-SEP-1995; 95CA-02158425.
XX (HADL/) HADLEY M E.
XX Hadley ME;
XX WPI; 1997-320151/30.
XX Diagnosis and treatment of erectile dysfunction - by administering an
FT erectogenic peptide containing the sequence Nie-Asp-His-D-Phe-Arg-Trp-
FT Lys.
XX Claim 1; Page 28; 32pp; English.
XX These erectogenic peptides (AAW19921-7) are used in a novel method for
CC inducing penile erection in an animal. They can be used, in conjunction
CC with testosterone or another androgen, to treat impotence in elderly men
CC whose testosterone levels are declining with age. The peptides also
CC appear to have an effect of increasing sexual response in females. They
CC may therefore be administered to increase libido in female animals of
CC rare species in captivity at the proper time in their oestrous cycle to
CC make them more receptive to coitus. They may also be administered to the
CC male animal at the same time to induce the erectile response. The
CC peptides may be used in artificial insemination programmes to encourage
CC an animal, e.g. a stallion, to mount a mock female phantom used in the
CC collection of sperm. The peptides invariably induce an erection in men at
CC low doses (e.g. 1-10 mg) and without any detectable side effects when
CC administered systemically. The peptides, at low doses, also allow
CC detumescence following ejaculation
XX SQ Sequence 8 AA;
Query Match 100.0%; Score 36; DB 2; Length 8;
Best Local Similarity 83.3%; Pred. No. 1.4e+06;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 1 DHXRWK 6
Db 2 DHFRWK 7
RESULT 45
AAW29344
ID AAW29344 standard; peptide; 8 AA.
XX AAW29344;
AC AAW29344;
DT 13-JAN-1998 (first entry)
XX Cyclic human alpha-melanocyte stimulating hormone analogue 24.
XX Human alpha-melanocyte stimulating hormone; analogue; alpha-MSH;
KW alpha-melanotropin; proopiomelanocortin; hypopigmentation;
KW pityriasis alba; tinea versicolor; vitiligo;
KW idiopathic guttae hypomelanosis; nevus depigmentosus; animal pelt;
KW cyclic.
XX Synthetic.
OS Homo sapiens.
XX Key Location/Qualifiers

FT Modified-site 1 /note= "N-terminal acetyl"
FT Modified-site 2 /label= Nle
FT Modified-site 3 /note= "Norleucine"
FT /note= "The carboxyl group side chain of Asp at position
FT 3 forms a lactam bridge with the side chain amino group
FT of Lys-NH2 at position 8"
FT Misc-difference 5 /note= "D-form residue"
FT Modified-site 8
FT /note= "C-terminal amide; The amino side group chain of
FT Lys-NH2 at position 8 forms a lactam bridge with the side
FT chain carboxyl group of Asp at position 3"
XX US5674839-A.
PN 07-OCT-1997.
XX 06-DEC-1994; 94US-00349902.
XX 22-MAY-1987; 87US-00053229.
PR 29-JUN-1988; 88US-00212807.
PR 13-NOV-1990; 90US-00611456.
PR 17-JUL-1992; 92US-00916767.
XX (COMP-) COMPETITIVE TECHNOLOGIES INC.
XX Al-Obeidi F, Hruby VJ, Hadley ME;
XX WPI; 1997-502371/46.
XX New cyclic peptide analogues of alpha-melanocyte stimulating hormone -
FT for treatment of hypopigmentation and for darkening human hair or animal
FT pelts, have prolonged action.
XX Claim 1; Col 43; 23pp; English.
XX This peptide is a synthetic, cyclic analogue of human alpha melanocyte
CC stimulating hormone (alpha-MSH). It is used to stimulate mammalian
CC melanocytes to produce integumental melanin, i.e. to treat
CC hypopigmentation such as pityriasis alba, tinea versicolor, vitiligo,
CC idiopathic guttae hypomelanosis and nevus depigmentosus. It can also be
CC used to darken grey hair and to increase the value of animal pelts. The
CC peptide can replace alpha-MSH or its Nle4 analogue, in all diagnostic,
CC therapeutic and research applications, e.g. localisation/
CC characterisation of melanoma cells, and as ligand to deliver anticancer
CC or diagnostic agents. Also treatment with the peptide darkens the skin
CC without any exposure to UV light. In a bioassay on frog skin the present
CC peptide showed prolonged activity and had a melanocyte dispersion
CC activity of 1.0, (identical to native alpha-MSH)
XX SQ Sequence 8 AA;
Query Match 100.0%; Score 36; DB 2; Length 8;
Best Local Similarity 83.3%; Pred. No. 1.4e+06;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 1 DHXRWK 6
Db 3 DHFRWK 8
Search completed: May 19, 2004, 15:54:59
Job time : 55 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: May 18, 2004, 15:55:06 ; Search time 23 Seconds
(without alignments)
13.468 Million cell updates/sec

Title: CLAIM11

Perfect score: 36

Sequence: 1 DHXRWK 6

Scoring table: BLOSUM62DX

Gapop 10.0 , Gapext 0.5

Searched: 389414 seqs, 51625971 residues

Total number of hits satisfying chosen parameters: 103740

Minimum DB seq length: 0

Maximum DB seq length: 10

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Issued Patents AA.*

- 1: /cgn2_6/ptodata/2/iaa/5A.COMB.pap.*
- 2: /cgn2_6/ptodata/2/iaa/5B.COMB.pap.*
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- 4: /cgn2_6/ptodata/2/iaa/6B.COMB.pap.*
- 5: /cgn2_6/ptodata/2/iaa/PCTUS.COMB.pap.*
- 6: /cgn2_6/ptodata/2/iaa/backfiles1.pap.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	36	100.0	7	1	US-08-349-902B-8
2	36	100.0	7	1	US-08-349-902B-15
3	36	100.0	7	1	US-08-349-902B-18
4	36	100.0	7	1	US-08-349-902B-26
5	36	100.0	7	1	US-08-420-972A-1
6	36	100.0	7	1	US-08-420-972A-2
7	36	100.0	7	3	US-08-980-238B-8
8	36	100.0	7	3	US-08-980-238B-9
9	36	100.0	7	3	US-08-980-238B-12
10	36	100.0	7	3	US-08-893-749-1
11	36	100.0	7	4	US-09-240-078-54
12	36	100.0	7	4	US-09-374-827-5
13	36	100.0	7	4	US-09-374-827-6
14	36	100.0	8	1	US-08-349-902B-25
15	36	100.0	8	1	US-08-349-902B-27
16	36	100.0	9	1	US-08-349-902B-24
17	36	100.0	9	1	US-08-349-902B-28
18	36	100.0	9	1	US-08-349-902B-33
19	36	100.0	9	3	US-08-893-749-30
20	36	100.0	10	1	US-08-349-902B-5
21	36	100.0	10	1	US-08-349-902B-23
22	36	100.0	10	1	US-08-349-902B-29
23	36	100.0	10	1	US-08-349-902B-34
24	36	100.0	10	3	US-08-893-749-9
25	36	100.0	10	3	US-08-893-749-31
26	32	88.9	7	1	US-08-349-902B-7
27	32	88.9	7	1	US-08-349-902B-14

28	32	88.9	7	1	US-08-349-902B-17
29	32	88.9	10	1	US-08-349-902B-4
30	32	88.9	10	1	US-08-349-902B-16
31	31	86.1	7	1	US-08-349-902B-6
32	31	86.1	7	1	US-08-349-902B-10
33	31	86.1	7	1	US-08-349-902B-12
34	31	86.1	7	1	US-08-349-902B-13
35	31	86.1	7	1	US-08-349-902B-19
36	31	86.1	7	1	US-08-349-902B-20
37	31	86.1	7	1	US-08-349-902B-21
38	30	83.3	6	4	US-09-240-078-55
39	28	77.8	8	3	US-09-147-915-5
40	27	75.0	5	4	US-09-374-827-1
41	27	75.0	6	4	US-09-353-650-1
42	27	75.0	6	4	US-09-353-650-2
43	27	75.0	6	6	547855-19
44	27	75.0	7	1	US-08-349-902B-9
45	27	75.0	7	1	US-08-349-902B-11

ALIGNMENTS

RESULT 1

US-08-349-902B-8

Sequence 8, Application US/08349902B

Patent No. 5674839

GENERAL INFORMATION:

APPLICANT: Victor J. Hruby et al

TITLE OF INVENTION: Linear and Cyclic Analogs of

TITLE OF INVENTION: alpha-MSH fragments

NUMBER OF SEQUENCES: 34

CORRESPONDENCE ADDRESS:

ADDRESSEE: Yahwak & Associates

STREET: 25 Skytop Drive

CITY: Trumbull

STATE: Connecticut

COUNTRY: USA

ZIP: 06611

COMPUTER READABLE FORM:

MEDIUM TYPE: floppy disk

COMPUTER: Macintosh

OPERATING SYSTEM: MS-DOS

SOFTWARE: Microsoft Word 5.0

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/349,902B

FILING DATE: 6-DEC-1994

CLASSIFICATION: 530

ATTORNEY/AGENT INFORMATION:

NAME: George M. Yahwak

REGISTRATION NUMBER: 26,824

REFERENCE/DOCKET NUMBER: UA 816 CIP

TELECOMMUNICATION INFORMATION:

TELEPHONE: (203)268-1951

TELEFAX: (203)268-1951

INFORMATION FOR SEQ ID NO: 8:

SEQUENCE CHARACTERISTICS:

LENGTH: 7 amino acids

TYPE: amino acid

STRANDEDNESS: single

TOPOLOGY: linear

MOLECULE TYPE: peptide

FEATURE:

OTHER INFORMATION: position 1 is

OTHER INFORMATION: No. 5674839leucine; position 4 is D-phenylalanine

Query Match 100.0%; Score 36; DB 1; Length 7;
Best Local Similarity 100.0%; Pred. No. 3e+05;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 DHXRWK 6
|||||

```
Db          2 DHXRWK 7

RESULT 2
US-08-349-902B-15
; Sequence 15, Application US/08349902B
; Patent No. 5674839
; GENERAL INFORMATION:
; APPLICANT: Victor J. Hruby et al
; TITLE OF INVENTION: Linear and Cyclic Analogs of
; TITLE OF INVENTION: alpha-MSH fragments
; NUMBER OF SEQUENCES: 34
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Yahwak & Associates
; STREET: 25 Skytop Drive
; CITY: Trumbull
; STATE: Connecticut
; COUNTRY: USA
; ZIP: 06611
; COMPUTER READABLE FORM:
; MEDIUM TYPE: floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Microsoft Word 5.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/349,902B
; FILING DATE: 6-DEC-1994
; CLASSIFICATION: 530
; ATTORNEY/AGENT INFORMATION:
; NAME: George M. Yahwak
; REGISTRATION NUMBER: 26,824
; REFERENCE/DOCKET NUMBER: UA 816 CIP
; TELEPHONE: (203)268-1951
; TELEFAX: (203)268-1951
; INFORMATION FOR SEQ ID NO: 15:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 7 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; FEATURE:
; OTHER INFORMATION: position 1 is
; OTHER INFORMATION: No. 5674839leucine;
US-08-349-902B-15
Query Match          100.0%; Score 36; DB 1; Length 7;
Best Local Similarity 83.3%; Pred. No. 3e+05;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY          1 DHXRWK 6
           ||:||||
Db          2 DHXRWK 7

RESULT 3
US-08-349-902B-18
; Sequence 18, Application US/08349902B
; Patent No. 5674839
; GENERAL INFORMATION:
; APPLICANT: Victor J. Hruby et al
; TITLE OF INVENTION: Linear and Cyclic Analogs of
; TITLE OF INVENTION: alpha-MSH fragments
; NUMBER OF SEQUENCES: 34
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Yahwak & Associates
; STREET: 25 Skytop Drive
; CITY: Trumbull
; STATE: Connecticut
; COUNTRY: USA
; ZIP: 06611
; COMPUTER READABLE FORM:
; MEDIUM TYPE: floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Microsoft Word 5.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/349,902B
; FILING DATE: 6-DEC-1994
; CLASSIFICATION: 530
; ATTORNEY/AGENT INFORMATION:
; NAME: George M. Yahwak
; REGISTRATION NUMBER: 26,824
; REFERENCE/DOCKET NUMBER: UA 816 CIP
; TELEPHONE: (203)268-1951
; TELEFAX: (203)268-1951
; INFORMATION FOR SEQ ID NO: 18:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 7 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; FEATURE:
; OTHER INFORMATION: position 1 is
; OTHER INFORMATION: No. 5674839leucine;
US-08-349-902B-18
Query Match          100.0%; Score 36; DB 1; Length 7;
Best Local Similarity 100.0%; Pred. No. 3e+05;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY          1 DHXRWK 6
           ||:||||
Db          2 DHXRWK 7

RESULT 4
US-08-349-902B-26
; Sequence 26, Application US/08349902B
; Patent No. 5674839
; GENERAL INFORMATION:
; APPLICANT: Victor J. Hruby et al
; TITLE OF INVENTION: Linear and Cyclic Analogs of
; TITLE OF INVENTION: alpha-MSH fragments
; NUMBER OF SEQUENCES: 34
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Yahwak & Associates
; STREET: 25 Skytop Drive
; CITY: Trumbull
; STATE: Connecticut
; COUNTRY: USA
; ZIP: 06611
; COMPUTER READABLE FORM:
; MEDIUM TYPE: floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Microsoft Word 5.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/349,902B
; FILING DATE: 6-DEC-1994
; CLASSIFICATION: 530
; ATTORNEY/AGENT INFORMATION:
; NAME: George M. Yahwak
; REGISTRATION NUMBER: 26,824
; REFERENCE/DOCKET NUMBER: UA 816 CIP
; TELEPHONE: (203)268-1951
; TELEFAX: (203)268-1951
; INFORMATION FOR SEQ ID NO: 26:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 7 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
```

```
;
; TOPOLOGY: cyclic
; MOLECULE TYPE: peptide
; FEATURE:
;
; OTHER INFORMATION: position 1 is
; D-phenylalanine
;
; OTHER INFORMATION: No. 567483leucine; position 4 is D-phenylalanine
;
US-08-349-902B-26

Query Match 100.0%; Score 36; DB 1; Length 7;
Best Local Similarity 100.0%; Pred. No. 3e+05;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DHXRWK 6
Db 2 DHXRWK 7

RESULT 5
US-08-420-972A-1
; Sequence 1, Application US/08420972A
; Patent No. 5731408
; GENERAL INFORMATION:
; APPLICANT: Mac E. Hadley, Victor J. Hruby and Shubh Sharma
; TITLE OF INVENTION: PEPTIDES HAVING POTENT ANTAGONIST AND
; TITLE OF INVENTION: AGONIST BIOACTIVITIES AT MELANOCORTIN RECEPTORS
; NUMBER OF SEQUENCES: 3
; CORRESPONDENCE ADDRESS:
; ADDRESS: Yahwak & Associates
; STREET: 25 Skytop Drive
; CITY: Trumbull
; STATE: Connecticut
; COUNTRY: USA
; ZIP: 06611
; COMPUTER READABLE FORM:
; MEDIUM TYPE: floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Microsoft Word 5.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/420,972A
; FILING DATE: April 10th 1995
; CLASSIFICATION: 530
; ATTORNEY/AGENT INFORMATION:
; NAME: George M. Yahwak
; REGISTRATION NUMBER: 26,824
; REFERENCE/DOCKET NUMBER: UA1316
; TELEPHONE: (203)268-1951
; TELEFAX: (203)268-1951
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 7 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: cyclic
; MOLECULE TYPE: peptide
; FEATURE:
; OTHER INFORMATION: cyclic from position 2 to position 7;
; OTHER INFORMATION: Xaa at position 1 is norleucine; Xaa at position 4 is D-phenylalanine
;
US-08-420-972A-1

Query Match 100.0%; Score 36; DB 1; Length 7;
Best Local Similarity 100.0%; Pred. No. 3e+05;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DHXRWK 6
Db 2 DHXRWK 7

RESULT 6
US-08-420-972A-2
; Sequence 2, Application US/08420972A
; Patent No. 5731408
```

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;
; GENERAL INFORMATION:
; APPLICANT: Mac E. Hadley, Victor J. Hruby and Shubh Sharma
; TITLE OF INVENTION: PEPTIDES HAVING POTENT ANTAGONIST AND
; TITLE OF INVENTION: AGONIST BIOACTIVITIES AT MELANOCORTIN RECEPTORS
; NUMBER OF SEQUENCES: 3
; CORRESPONDENCE ADDRESS:
; ADDRESS: Yahwak & Associates
; STREET: 25 Skytop Drive
; CITY: Trumbull
; STATE: Connecticut
; COUNTRY: USA
; ZIP: 06611
; COMPUTER READABLE FORM:
; MEDIUM TYPE: floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Microsoft Word 5.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/420,972A
; FILING DATE: April 10th 1995
; CLASSIFICATION: 530
; ATTORNEY/AGENT INFORMATION:
; NAME: George M. Yahwak
; REGISTRATION NUMBER: 26,824
; REFERENCE/DOCKET NUMBER: UA1316
; TELEPHONE: (203)268-1951
; TELEFAX: (203)268-1951
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 7 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: cyclic
; MOLECULE TYPE: peptide
; FEATURE:
; OTHER INFORMATION: cyclic from position 2 to position 7;
; OTHER INFORMATION: Xaa at position 1 is norleucine; Xaa at position 4 is D-phenylalanine
;
US-08-420-972A-2

Query Match 100.0%; Score 36; DB 1; Length 7;
Best Local Similarity 100.0%; Pred. No. 3e+05;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DHXRWK 6
Db 2 DHXRWK 7

RESULT 7
US-08-980-238B-8
; Sequence 8, Application US/08980238B
; Patent No. 6054556
; GENERAL INFORMATION:
; APPLICANT: Victor J. Hruby et al
; TITLE OF INVENTION: Melanocortin Receptor Antagonists and Agonists
; NUMBER OF SEQUENCES: 16
; CORRESPONDENCE ADDRESS:
; ADDRESS: Yahwak & Associates
; STREET: 25 Skytop Drive
; CITY: Trumbull
; STATE: Connecticut
; COUNTRY: USA
; ZIP: 06611
; COMPUTER READABLE FORM:
; MEDIUM TYPE: floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Microsoft Word 6.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/980,238B
; FILING DATE: No. 6054556member 27th 1997
; CLASSIFICATION: 530
```


ATTORNEY/AGENT INFORMATION:
NAME: George M. Yahwak
REGISTRATION NUMBER: 26,824
REFERENCE/DOCKET NUMBER: UA 1558
TELEPHONE: (203)268-1951
TELEFAX: (203)268-1951
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 7 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: cyclic
MOLECULE TYPE: peptide
FEATURE:
OTHER INFORMATION: Position 1 is No. 6054556leucine; position 4 is (2R,3R)-a-Me-Naphthylalanine; peptide is cyclic between US-08-980-238B-8

Query Match 100.0%; Score 36; DB 3; Length 7;
Best Local Similarity 100.0%; Pred. No. 3e+05; 0; Indels 0; Gaps 0;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
Db 2 DHXRWK 7

RESULT 8
US-08-980-238B-9
Sequence 9, Application US/08980238B
Patent No. 6054556
GENERAL INFORMATION:
APPLICANT: Victor J. Hruby et al
TITLE OF INVENTION: Melanocortin Receptor Antagonists and Agonists
NUMBER OF SEQUENCES: 16
CORRESPONDENCE ADDRESS:
ADDRESSEE: Yahwak & Associates
STREET: 25 Skytop Drive
CITY: Trumbull
STATE: Connecticut
COUNTRY: USA
ZIP: 06611
COMPUTER READABLE FORM:
MEDIUM TYPE: floppy disk
COMPUTER: Macintosh
OPERATING SYSTEM: MS-DOS
SOFTWARE: Microsoft Word 6.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/980,238B
FILING DATE: No. 6054556member 27th 1997
CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
NAME: George M. Yahwak
REGISTRATION NUMBER: 26,824
REFERENCE/DOCKET NUMBER: UA 1558
TELEPHONE: (203)268-1951
TELEFAX: (203)268-1951
INFORMATION FOR SEQ ID NO: 12:
SEQUENCE CHARACTERISTICS:
LENGTH: 7 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: cyclic
MOLECULE TYPE: peptide
FEATURE:
OTHER INFORMATION: Position 1 is No. 6054556leucine; position 4 is (2R,3S)-a-Me-Naphthylalanine; peptide is cyclic between US-08-980-238B-9

Query Match 100.0%; Score 36; DB 3; Length 7;
Best Local Similarity 100.0%; Pred. No. 3e+05; 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
Db 2 DHXRWK 7

RESULT 9
US-08-980-238B-12
Sequence 12, Application US/08980238B
Patent No. 6054556
GENERAL INFORMATION:
APPLICANT: Victor J. Hruby et al
TITLE OF INVENTION: Melanocortin Receptor Antagonists and Agonists
NUMBER OF SEQUENCES: 16
CORRESPONDENCE ADDRESS:
ADDRESSEE: Yahwak & Associates
STREET: 25 Skytop Drive
CITY: Trumbull
STATE: Connecticut
COUNTRY: USA
ZIP: 06611
COMPUTER READABLE FORM:
MEDIUM TYPE: floppy disk
COMPUTER: Macintosh
OPERATING SYSTEM: MS-DOS
SOFTWARE: Microsoft Word 6.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/980,238B
FILING DATE: No. 6054556member 27th 1997
CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
NAME: George M. Yahwak
REGISTRATION NUMBER: 26,824
REFERENCE/DOCKET NUMBER: UA 1558
TELEPHONE: (203)268-1951
TELEFAX: (203)268-1951
INFORMATION FOR SEQ ID NO: 12:
SEQUENCE CHARACTERISTICS:
LENGTH: 7 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: cyclic
MOLECULE TYPE: peptide
FEATURE:
OTHER INFORMATION: Position 1 is No. 6054556leucine; position 4 is Naphthylalanine; peptide is cyclic between positions 2 a

Query Match 100.0%; Score 36; DB 3; Length 7;
Best Local Similarity 100.0%; Pred. No. 3e+05; 0; Indels 0; Gaps 0;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
Db 2 DHXRWK 7

RESULT 10
US-08-893-749-1
Sequence 1, Application US/08893749
Patent No. 6136916
GENERAL INFORMATION:
APPLICANT: MCBRIDE, William J.
APPLICANT: GRIFFITHS, Gary L.
TITLE OF INVENTION: RADIOMETAL-BINDING PEPTIDE ANALOGUES
NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:
ADDRESSEE: FOLEY & LARDNER
STREET: 3000 K Street, N.W.
CITY: Washington
STATE: D.C.

Query Match 100.0%; Score 36; DB 3; Length 7;
Best Local Similarity 100.0%; Pred. No. 3e+05; 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
Db 2 DHXRWK 7

COUNTRY: U.S.A.
ZIP: 20007-5109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
OPERATING SYSTEM: IBM PC compatible
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/893,749
FILING DATE: 11-JUL-1997
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/021,662
FILING DATE: 12-JUL-1996
ATTORNEY/AGENT INFORMATION:
NAME: Saxe, Bein D.
REGISTRATION NUMBER: 28,665
REFERENCE/DOCKET NUMBER: 018733/0804
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 672-5300
TELEFAX: (202) 672-5399
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 7 amino acids
TYPE: amino acid
STRANDEDNESS:
TOPOLOGY: linear
MOLECULE TYPE: peptide
FEATURE:
NAME/KEY: Modified-site
LOCATION: 1
OTHER INFORMATION: /product= "Nle"
FEATURE:
NAME/KEY: Modified-site
LOCATION: 4
OTHER INFORMATION: /note= "Xaa is D-Phe"
US-08-893-749-1

Query Match 100.0%; Score 36; DB 3; Length 7;
Best Local Similarity 100.0%; Pred. No. 3e+05;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DHXRWK 6
Db 2 DHXRWK 7

RESULT 11
US-09-240-078-54
; Sequence 54, Application US/09240078
; Patent No. 6303749
; GENERAL INFORMATION:
; APPLICANT: Jarosinski, Mark A.
; TITLE OF INVENTION: No. 6303749e1 Agouti and Agouti-Related Peptide Analogs
; FILE REFERENCE: A-569
; CURRENT APPLICATION NUMBER: US/09/240,078
; CURRENT FILING DATE: 1999-01-29
; NUMBER OF SEQ ID NOS: 55
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 54
; LENGTH: 7
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: PEPTIDE
; LOCATION: (1)
; OTHER INFORMATION: Xaa in position 1 represents norleucine, a
; OTHER INFORMATION: synthetic amino acid.
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: AGRP Peptide
; OTHER INFORMATION: Analog
US-09-240-078-54

Query Match 100.0%; Score 36; DB 4; Length 7;
Best Local Similarity 83.3%; Pred. No. 3e+05;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DHXRWK 6
Db 2 DHXRWK 7

RESULT 12
US-09-374-827-5
; Sequence 5, Application US/09374827
; Patent No. 6603058
; GENERAL INFORMATION:
; APPLICANT: Brennan, Miles B.
; APPLICANT: Hochgeschwender, Ute
; TITLE OF INVENTION: "NON-HUMAN ANIMAL MODEL FOR OBESITY AND USES THEREOF"
; FILE REFERENCE: 3718-5
; CURRENT APPLICATION NUMBER: US/09/374,827
; CURRENT FILING DATE: 1999-08-12
; EARLIER APPLICATION NUMBER: 60/111,581
; EARLIER FILING DATE: 1998-12-09
; EARLIER APPLICATION NUMBER: 60/146,306
; EARLIER FILING DATE: 1999-07-29
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 5
; LENGTH: 7
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (1)
; OTHER INFORMATION: Nle
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (4)
; OTHER INFORMATION: Xaa = D-naphthylalanine
; FEATURE:
; NAME/KEY: PEPTIDE
; LOCATION: (1)-(7)
; OTHER INFORMATION: analog
US-09-374-827-5

Query Match 100.0%; Score 36; DB 4; Length 7;
Best Local Similarity 100.0%; Pred. No. 3e+05;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DHXRWK 6
Db 2 DHXRWK 7

RESULT 13
US-09-374-827-6
; Sequence 6, Application US/09374827
; Patent No. 6603058
; GENERAL INFORMATION:
; APPLICANT: Brennan, Miles B.
; APPLICANT: Hochgeschwender, Ute
; TITLE OF INVENTION: "NON-HUMAN ANIMAL MODEL FOR OBESITY AND USES THEREOF"
; FILE REFERENCE: 3718-5
; CURRENT APPLICATION NUMBER: US/09/374,827
; CURRENT FILING DATE: 1999-08-12
; EARLIER APPLICATION NUMBER: 60/111,581
; EARLIER FILING DATE: 1998-12-09
; EARLIER APPLICATION NUMBER: 60/146,306
; EARLIER FILING DATE: 1999-07-29
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 6
; LENGTH: 7
; TYPE: PRT

ORGANISM: Artificial Sequence
FEATURE:
NAME/KEY: MOD_RES
LOCATION: (1)
OTHER INFORMATION: Xaa = Nle
FEATURE:
NAME/KEY: MOD_RES
LOCATION: (4)
OTHER INFORMATION: Phe = D-para-iodo-phenylalanine
FEATURE:
NAME/KEY: PEPTIDE
LOCATION: (1)..(7)
OTHER INFORMATION: analog
US-09-374-827-6

Query Match 100.0%; Score 36; DB 4; Length 7;
Best Local Similarity 83.3%; Pred. No. 3e+05; 0; Indels 0;
Matches 5; Conservative 1; Mismatches 0; Gaps 0;

QY 1 DHXRWK 6
Db 2 DHERWK 7

RESULT 14
US-08-349-902B-25
Sequence 25, Application US/08349902B
Patent No. 5674839
GENERAL INFORMATION:
APPLICANT: Victor J. Hruby et al
TITLE OF INVENTION: Linear and Cyclic Analogs of
TITLE OF INVENTION: alpha-MSH fragments
NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:
ADDRESSEE: Yahwak & Associates
STREET: 25 Skytop Drive
CITY: Trumbull
STATE: Connecticut
COUNTRY: USA
ZIP: 06611
COMPUTER READABLE FORM:
MEDIUM TYPE: floppy disk
COMPUTER: Macintosh
OPERATING SYSTEM: MS-DOS
SOFTWARE: Microsoft Word 5.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/349,902B
FILING DATE: 6-DEC-1994
CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
NAME: George M. Yahwak
REGISTRATION NUMBER: 26,824
REFERENCE/DOCKET NUMBER: UA 816 CIP
TELECOMMUNICATION INFORMATION:
TELEPHONE: (203)268-1951
TELEFAX: (203)268-1951
INFORMATION FOR SEQ ID NO: 25:
SEQUENCE CHARACTERISTICS:
LENGTH: 8 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: cyclic
MOLECULE TYPE: peptide
FEATURE:
OTHER INFORMATION: position 2 is D-phenylalanine
OTHER INFORMATION: No. 5674839leucine; position 5 is D-phenylalanine
US-08-349-902B-25

Query Match 100.0%; Score 36; DB 1; Length 8;
Best Local Similarity 100.0%; Pred. No. 3e+05;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6

Db 3 DHXRWK 8

RESULT 15
US-08-349-902B-27
Sequence 27, Application US/08349902B
Patent No. 5674839
GENERAL INFORMATION:
APPLICANT: Victor J. Hruby et al
TITLE OF INVENTION: Linear and Cyclic Analogs of
TITLE OF INVENTION: alpha-MSH fragments
NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:
ADDRESSEE: Yahwak & Associates
STREET: 25 Skytop Drive
CITY: Trumbull
STATE: Connecticut
COUNTRY: USA
ZIP: 06611
COMPUTER READABLE FORM:
MEDIUM TYPE: floppy disk
COMPUTER: Macintosh
OPERATING SYSTEM: MS-DOS
SOFTWARE: Microsoft Word 5.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/349,902B
FILING DATE: 6-DEC-1994
CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
NAME: George M. Yahwak
REGISTRATION NUMBER: 26,824
REFERENCE/DOCKET NUMBER: UA 816 CIP
TELECOMMUNICATION INFORMATION:
TELEPHONE: (203)268-1951
TELEFAX: (203)268-1951
INFORMATION FOR SEQ ID NO: 27:
SEQUENCE CHARACTERISTICS:
LENGTH: 8 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: cyclic
MOLECULE TYPE: peptide
FEATURE:
OTHER INFORMATION: position 1 is D-phenylalanine
OTHER INFORMATION: No. 5674839leucine; position 4 is D-phenylalanine
US-08-349-902B-27

Query Match 100.0%; Score 36; DB 1; Length 8;
Best Local Similarity 100.0%; Pred. No. 3e+05;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
Db 2 DHXRWK 7

RESULT 16
US-08-349-902B-24
Sequence 24, Application US/08349902B
Patent No. 5674839
GENERAL INFORMATION:
APPLICANT: Victor J. Hruby et al
TITLE OF INVENTION: Linear and Cyclic Analogs of
TITLE OF INVENTION: alpha-MSH fragments
NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:
ADDRESSEE: Yahwak & Associates
STREET: 25 Skytop Drive
CITY: Trumbull
STATE: Connecticut
COUNTRY: USA
ZIP: 06611
COMPUTER READABLE FORM:
MEDIUM TYPE: floppy disk
COMPUTER: Macintosh
OPERATING SYSTEM: MS-DOS
SOFTWARE: Microsoft Word 5.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/349,902B
FILING DATE: 6-DEC-1994
CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
NAME: George M. Yahwak
REGISTRATION NUMBER: 26,824
REFERENCE/DOCKET NUMBER: UA 816 CIP
TELECOMMUNICATION INFORMATION:
TELEPHONE: (203)268-1951
TELEFAX: (203)268-1951
INFORMATION FOR SEQ ID NO: 25:
SEQUENCE CHARACTERISTICS:
LENGTH: 8 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: cyclic
MOLECULE TYPE: peptide
FEATURE:
OTHER INFORMATION: position 2 is D-phenylalanine
OTHER INFORMATION: No. 5674839leucine; position 5 is D-phenylalanine
US-08-349-902B-25

```
;
; COMPUTER READABLE FORM:
; MEDIUM TYPE: floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Microsoft Word 5.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/349,902B
; FILING DATE: 6-DEC-1994
; CLASSIFICATION: 530
; ATTORNEY/AGENT INFORMATION:
; NAME: George M. Yahwak
; REGISTRATION NUMBER: 26,824
; REFERENCE/DOCKET NUMBER: UA 816 CIP
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (203)268-1951
; TELEFAX: (203)268-1951
; INFORMATION FOR SEQ ID NO: 24:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 9 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: cyclic
; MOLECULE TYPE: peptide
; FEATURE:
; OTHER INFORMATION: position 3 is
; OTHER INFORMATION: No. 5674839leucine; position 6 is D-phenylalanine
US-08-349-902B-24

Query Match 100.0%; Score 36; DB 1; Length 9;
Best Local Similarity 100.0%; Pred. No. 3e+05;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
DB 4 DHXRWK 9

RESULT 17
US-08-349-902B-28
; Sequence 28, Application US/08349902B
; Patent No. 5674839
; GENERAL INFORMATION:
; APPLICANT: Victor J. Hruby et al
; TITLE OF INVENTION: Linear and Cyclic Analogs of
; TITLE OF INVENTION: alpha-MSH fragments
; NUMBER OF SEQUENCES: 34
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Yahwak & Associates
; STREET: 25 Skytop Drive
; CITY: Trumbull
; STATE: Connecticut
; COUNTRY: USA
; ZIP: 06611
; COMPUTER READABLE FORM:
; MEDIUM TYPE: floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Microsoft Word 5.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/349,902B
; FILING DATE: 6-DEC-1994
; CLASSIFICATION: 530
; ATTORNEY/AGENT INFORMATION:
; NAME: George M. Yahwak
; REGISTRATION NUMBER: 26,824
; REFERENCE/DOCKET NUMBER: UA 816 CIP
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (203)268-1951
; TELEFAX: (203)268-1951
; INFORMATION FOR SEQ ID NO: 28:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 9 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: cyclic
; MOLECULE TYPE: peptide
; FEATURE:
; OTHER INFORMATION: position 3 is
; OTHER INFORMATION: No. 5674839leucine; position 6 is D-phenylalanine
US-08-349-902B-28

Query Match 100.0%; Score 36; DB 1; Length 9;
Best Local Similarity 100.0%; Pred. No. 3e+05;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
DB 4 DHXRWK 9

RESULT 18
US-08-349-902B-33
; Sequence 33, Application US/08349902B
; Patent No. 5674839
; GENERAL INFORMATION:
; APPLICANT: Victor J. Hruby et al
; TITLE OF INVENTION: Linear and Cyclic Analogs of
; TITLE OF INVENTION: alpha-MSH fragments
; NUMBER OF SEQUENCES: 34
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Yahwak & Associates
; STREET: 25 Skytop Drive
; CITY: Trumbull
; STATE: Connecticut
; COUNTRY: USA
; ZIP: 06611
; COMPUTER READABLE FORM:
; MEDIUM TYPE: floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Microsoft Word 5.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/349,902B
; FILING DATE: 6-DEC-1994
; CLASSIFICATION: 530
; ATTORNEY/AGENT INFORMATION:
; NAME: George M. Yahwak
; REGISTRATION NUMBER: 26,824
; REFERENCE/DOCKET NUMBER: UA 816 CIP
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (203)268-1951
; TELEFAX: (203)268-1951
; INFORMATION FOR SEQ ID NO: 33:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 9 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: cyclic
; MOLECULE TYPE: peptide
; FEATURE:
; OTHER INFORMATION: position 3 is
; OTHER INFORMATION: No. 5674839leucine; position 6 is D-phenylalanine
US-08-349-902B-33

Query Match 100.0%; Score 36; DB 1; Length 9;
Best Local Similarity 100.0%; Pred. No. 3e+05;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
DB 4 DHXRWK 9

RESULT 19
US-08-893-749-30
; Sequence 30, Application US/08893749
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;
; STRANDEDNESS: single
; TOPOLOGY: cyclic
; MOLECULE TYPE: peptide
; FEATURE:
; OTHER INFORMATION: position 1 is
; OTHER INFORMATION: No. 5674839leucine; position 4 is D-phenylalanine
US-08-349-902B-28

Query Match 100.0%; Score 36; DB 1; Length 9;
Best Local Similarity 100.0%; Pred. No. 3e+05;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
DB 2 DHXRWK 7

RESULT 18
US-08-349-902B-33
; Sequence 33, Application US/08349902B
; Patent No. 5674839
; GENERAL INFORMATION:
; APPLICANT: Victor J. Hruby et al
; TITLE OF INVENTION: Linear and Cyclic Analogs of
; TITLE OF INVENTION: alpha-MSH fragments
; NUMBER OF SEQUENCES: 34
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Yahwak & Associates
; STREET: 25 Skytop Drive
; CITY: Trumbull
; STATE: Connecticut
; COUNTRY: USA
; ZIP: 06611
; COMPUTER READABLE FORM:
; MEDIUM TYPE: floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Microsoft Word 5.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/349,902B
; FILING DATE: 6-DEC-1994
; CLASSIFICATION: 530
; ATTORNEY/AGENT INFORMATION:
; NAME: George M. Yahwak
; REGISTRATION NUMBER: 26,824
; REFERENCE/DOCKET NUMBER: UA 816 CIP
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (203)268-1951
; TELEFAX: (203)268-1951
; INFORMATION FOR SEQ ID NO: 33:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 9 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: cyclic
; MOLECULE TYPE: peptide
; FEATURE:
; OTHER INFORMATION: position 3 is
; OTHER INFORMATION: No. 5674839leucine; position 6 is D-phenylalanine
US-08-349-902B-33

Query Match 100.0%; Score 36; DB 1; Length 9;
Best Local Similarity 100.0%; Pred. No. 3e+05;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
DB 4 DHXRWK 9

RESULT 19
US-08-893-749-30
; Sequence 30, Application US/08893749
```

RESULT 20
US-08-349-902B-5
; Sequence 5, Application US/08349902B
; Patent No. 5674839
; GENERAL INFORMATION:
; APPLICANT: Victor J. Hrubby et al
; TITLE OF INVENTION: Linear and C
; TITLE OF INVENTION: alpha-MSH fr
; NUMBER OF SEQUENCES: 34
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Yahwak & Associates
; STREET: 25 Skytop Drive
; CITY: Trumbull
; STATE: Connecticut
; COUNTRY: USA

US-08-349-902B-23
 ; Sequence 23, Application US/08349902B
 ; Patent No. 5674839
 ; GENERAL INFORMATION:
 ; APPLICANT: Victor J. Hruby et al
 ; TITLE OF INVENTION: Linear and Cyclic Analogs of
 ; TITLE OF INVENTION: alpha-MSH fragments
 ; NUMBER OF SEQUENCES: 34
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESS: Yahwak & Associates
 ; STREET: 25 Skytop Drive
 ; CITY: Trumbull
 ; STATE: Connecticut
 ; COUNTRY: USA
 ; ZIP: 06611
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: floppy disk
 ; COMPUTER: Macintosh
 ; OPERATING SYSTEM: MS-DOS
 ; SOFTWARE: Microsoft Word 5.0
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/349,902B
 ; FILING DATE: 6-DEC-1994
 ; CLASSIFICATION: 530
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: George M. Yahwak
 ; REGISTRATION NUMBER: 26,824
 ; REFERENCE/DOCKET NUMBER: UA 816 CIP
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: (203)268-1951
 ; TELEFAX: (203)268-1951
 ; INFORMATION FOR SEQ ID NO: 23:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 10 amino acids

TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: cyclic
MOLECULE TYPE: peptide
FEATURE:
OTHER INFORMATION: position 4 is
OTHER INFORMATION: No. 5674839leucine; position 7 is D-phenylalaline
US-08-349-902B-23

Query Match 100.0%; Score 36; DB 1; Length 10;
Best Local Similarity 100.0%; Pred. No. 2.1;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DHXRWK 6
Db 5 DHXRWK 10

RESULT 22

US-08-349-902B-29
Sequence 29, Application US/08349902B
Patent No. 5674839
GENERAL INFORMATION:
APPLICANT: Victor J. Hruby et al
TITLE OF INVENTION: Linear and Cyclic Analogs of
TITLE OF INVENTION: alpha-MSH fragments
NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:
ADDRESSEE: Yahwak & Associates
STREET: 25 Skytop Drive
CITY: Trumbull
STATE: Connecticut
COUNTRY: USA
ZIP: 06611

COMPUTER READABLE FORM:
MEDIUM TYPE: floppy disk
COMPUTER: Macintosh
OPERATING SYSTEM: MS-DOS
SOFTWARE: Microsoft Word 5.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/349.902B
FILING DATE: 6-DEC-1994
CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
NAME: George M. Yahwak
REGISTRATION NUMBER: 26,824
REFERENCE/DOCKET NUMBER: UA 816 CIP
TELECOMMUNICATION INFORMATION:
TELEPHONE: (203)268-1951
TELEFAX: (203)268-1951
INFORMATION FOR SEQ ID NO: 29:

SEQUENCE CHARACTERISTICS:
LENGTH: 10 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: cyclic
MOLECULE TYPE: peptide
FEATURE:

OTHER INFORMATION: position 1 is
OTHER INFORMATION: No. 5674839leucine; position 4 is D-phenylalaline
US-08-349-902B-29

Query Match 100.0%; Score 36; DB 1; Length 10;
Best Local Similarity 100.0%; Pred. No. 2.1;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DHXRWK 6
Db 2 DHXRWK 7

RESULT 23

US-08-349-902B-34

Sequence 34, Application US/08349902B
Patent No. 5674839
GENERAL INFORMATION:
APPLICANT: Victor J. Hruby et al
TITLE OF INVENTION: Linear and Cyclic Analogs of
TITLE OF INVENTION: alpha-MSH fragments
NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:
ADDRESSEE: Yahwak & Associates
STREET: 25 Skytop Drive
CITY: Trumbull
STATE: Connecticut
COUNTRY: USA
ZIP: 06611

COMPUTER READABLE FORM:
MEDIUM TYPE: floppy disk
COMPUTER: Macintosh
OPERATING SYSTEM: MS-DOS
SOFTWARE: Microsoft Word 5.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/349.902B
FILING DATE: 6-DEC-1994
CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
NAME: George M. Yahwak
REGISTRATION NUMBER: 26,824
REFERENCE/DOCKET NUMBER: UA 816 CIP
TELECOMMUNICATION INFORMATION:
TELEPHONE: (203)268-1951
TELEFAX: (203)268-1951
INFORMATION FOR SEQ ID NO: 34:

SEQUENCE CHARACTERISTICS:
LENGTH: 10 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: cyclic
MOLECULE TYPE: peptide
FEATURE:

OTHER INFORMATION: position 4 is
OTHER INFORMATION: No. 5674839leucine; position 7 is D-phenylalaline
US-08-349-902B-34

Query Match 100.0%; Score 36; DB 1; Length 10;
Best Local Similarity 100.0%; Pred. No. 2.1;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DHXRWK 6
Db 5 DHXRWK 10

RESULT 24

US-08-893-749-9
Sequence 9, Application US/08893749
Patent No. 6126916
GENERAL INFORMATION:

APPLICANT: MCBRIDE, William J.
APPLICANT: GRIFFITHS, Gary L.
TITLE OF INVENTION: RADIOMETAL-BINDING PEPTIDE ANALOGUES
NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:

ADDRESSEE: FOLEY & LARDNER
STREET: 3000 K Street, N.W.
CITY: Washington
STATE: D.C.
COUNTRY: U.S.A.
ZIP: 20007-5109

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/893,749
FILING DATE: 11-JUL-1997
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/021,662
FILING DATE: 12-JUL-1996
ATTORNEY/AGENT INFORMATION:
NAME: Saxe, Bern D.
REGISTRATION NUMBER: 28,665
REFERENCE/DOCKET NUMBER: 018733/0804
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 672-5300
TELEFAX: (202) 672-5399
INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
LENGTH: 10 amino acids
TYPE: amino acid
STRANDEDNESS:
TOPOLOGY: linear
MOLECULE TYPE: peptide
FEATURE:
NAME/KEY: Modified-site
LOCATION: 4
OTHER INFORMATION: /product= "Nle"
FEATURE:
NAME/KEY: Modified-site
LOCATION: 7
OTHER INFORMATION: /note= "Xaa is D-Phe"
US-08-893-749-9

Query Match 100.0%; Score 36; DB 3; Length 10;
Best Local Similarity 100.0%; Pred. No. 2.1;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
Db 5 DHXRWK 10

RESULT 25
US-08-893-749-31
Sequence 31, Application US/08893749
Patent No. 6126916
GENERAL INFORMATION:
APPLICANT: MCBIDE, William J.
APPLICANT: GRIFFITHS, Gary L.
TITLE OF INVENTION: RADIOMETAL-BINDING PEPTIDE ANALOGUES
NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:
ADDRESSEE: FOLEY & LARDNER
STREET: 3000 K Street, N.W.
CITY: Washington
STATE: D.C.
COUNTRY: U.S.A.
ZIP: 20007-5109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent In Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/893,749
FILING DATE: 11-JUL-1997
CLASSIFICATION: 530
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/021,662
FILING DATE: 12-JUL-1996
ATTORNEY/AGENT INFORMATION:
NAME: Saxe, Bern D.
REGISTRATION NUMBER: 28,665
REFERENCE/DOCKET NUMBER: 018733/0804
TELECOMMUNICATION INFORMATION:
TELEPHONE: (202) 672-5300

TELEFAX: (202) 672-5399
INFORMATION FOR SEQ ID NO: 31:
SEQUENCE CHARACTERISTICS:
LENGTH: 10 amino acids
TYPE: amino acid
STRANDEDNESS:
TOPOLOGY: linear
MOLECULE TYPE: peptide
FEATURE:
NAME/KEY: Modified-site
LOCATION: 4
OTHER INFORMATION: /product= "Nle"
FEATURE:
NAME/KEY: Modified-site
LOCATION: 7
OTHER INFORMATION: /note= "Xaa is D-Phe"
US-08-893-749-31

Query Match 100.0%; Score 36; DB 3; Length 10;
Best Local Similarity 100.0%; Pred. No. 2.1;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
Db 5 DHXRWK 10

RESULT 26
US-08-349-902B-7
Sequence 7, Application US/08349902B
Patent No. 5674839
GENERAL INFORMATION:
APPLICANT: Victor J. Hruby et al
TITLE OF INVENTION: Linear and Cyclic Analogs of
TITLE OF INVENTION: alpha-MSH fragments
NUMBER OF SEQUENCES: 34
CORRESPONDENCE ADDRESS:
ADDRESSEE: Yahwak & Associates
STREET: 25 Skytop Drive
CITY: Trumbull
STATE: Connecticut
COUNTRY: USA
ZIP: 06611
COMPUTER READABLE FORM:
MEDIUM TYPE: floppy disk
COMPUTER: Macintosh
OPERATING SYSTEM: MS-DOS
SOFTWARE: Microsoft Word 5.0
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/349,902B
FILING DATE: 6-DEC-1994
CLASSIFICATION: 530
ATTORNEY/AGENT INFORMATION:
NAME: George M. Yahwak
REGISTRATION NUMBER: 26,824
REFERENCE/DOCKET NUMBER: UA 816 CIP
TELECOMMUNICATION INFORMATION:
TELEPHONE: (203)268-1951
TELEFAX: (203)268-1951
INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
LENGTH: 7 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
FEATURE:
OTHER INFORMATION: position 1 is
OTHER INFORMATION: No. 5674839leucine; position 4 is D-phenylalanine
US-08-349-902B-7

Query Match 88.9%; Score 32; DB 1; Length 7;
Best Local Similarity 83.3%; Pred. No. 3e+05;

```
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
Db 2 EHXRWK 7

RESULT 27
US-08-349-902B-14
; Sequence 14, Application US/08349902B
; Patent No. 5674839
; GENERAL INFORMATION:
; APPLICANT: Victor J. Hruby et al
; TITLE OF INVENTION: Linear and Cyclic Analogs of
; REFERENCE/DOCKET NUMBER: alpha-MSH fragments
; NUMBER OF SEQUENCES: 34
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Yahwak & Associates
; STREET: 25 Skytop Drive
; CITY: Trumbull
; STATE: Connecticut
; COUNTRY: USA
; ZIP: 06611
; COMPUTER READABLE FORM:
; MEDIUM TYPE: floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Microsoft Word 5.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/349,902B
; FILING DATE: 6-DEC-1994
; CLASSIFICATION: 530
; ATTORNEY/AGENT INFORMATION:
; NAME: George M. Yahwak
; REGISTRATION NUMBER: 26,824
; REFERENCE/DOCKET NUMBER: UA 816 CIP
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (203)268-1951
; TELEFAX: (203)268-1951
; INFORMATION FOR SEQ ID NO: 14:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 7 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; FEATURE:
; OTHER INFORMATION: position 1 is
; OTHER INFORMATION: No. 5674839leucine
US-08-349-902B-14

Query Match 88.9%; Score 32; DB 1; Length 7;
Best Local Similarity 66.7%; Pred. No. 3e+05;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
Db 2 EHXRWK 7

RESULT 28
US-08-349-902B-17
; Sequence 17, Application US/08349902B
; Patent No. 5674839
; GENERAL INFORMATION:
; APPLICANT: Victor J. Hruby et al
; TITLE OF INVENTION: Linear and Cyclic Analogs of
; REFERENCE/DOCKET NUMBER: alpha-MSH fragments
; NUMBER OF SEQUENCES: 34
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Yahwak & Associates
; STREET: 25 Skytop Drive
; CITY: Trumbull

Query Match 88.9%; Score 32; DB 1; Length 7;
Best Local Similarity 66.7%; Pred. No. 3e+05;
Matches 4; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
Db 2 EHXRWK 7

RESULT 29
US-08-349-902B-4
; Sequence 4, Application US/08349902B
; Patent No. 5674839
; GENERAL INFORMATION:
; APPLICANT: Victor J. Hruby et al
; TITLE OF INVENTION: Linear and Cyclic Analogs of
; REFERENCE/DOCKET NUMBER: alpha-MSH fragments
; NUMBER OF SEQUENCES: 34
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Yahwak & Associates
; STREET: 25 Skytop Drive
; CITY: Trumbull
; STATE: Connecticut
; COUNTRY: USA
; ZIP: 06611
; COMPUTER READABLE FORM:
; MEDIUM TYPE: floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Microsoft Word 5.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/349,902B
; FILING DATE: 6-DEC-1994
; CLASSIFICATION: 530
; ATTORNEY/AGENT INFORMATION:
; NAME: George M. Yahwak
; REGISTRATION NUMBER: 26,824
; REFERENCE/DOCKET NUMBER: UA 816 CIP
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (203)268-1951
; TELEFAX: (203)268-1951
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 7 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: cyclic
; MOLECULE TYPE: peptide
; FEATURE:
; OTHER INFORMATION: position 1 is
; OTHER INFORMATION: No. 5674839leucine; position 4 is D-phenylalanine
US-08-349-902B-17

Query Match 88.9%; Score 32; DB 1; Length 7;
Best Local Similarity 83.3%; Pred. No. 3e+05;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRWK 6
Db 2 EHXRWK 7
```



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; SEQUENCE CHARACTERISTICS:
; LENGTH: 10 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; FEATURE:
; OTHER INFORMATION: position 1 is
; OTHER INFORMATION: No. 5674839leucine; position 4 is D-phenylalane
US-08-349-902B-4

Query Match      88.9%; Score 32; DB 1; Length 10;
Best Local Similarity 83.3%; Pred. No. 9.8;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY      1 DHXRWK 6
Db      2 EHXRWK 7

RESULT 30
US-08-349-902B-16
; Sequence 16, Application US/08349902B
; Patent No. 5674839
; GENERAL INFORMATION:
; APPLICANT: Victor J. Hruby et al
; TITLE OF INVENTION: Linear and Cyclic Analogs of
; TITLE OF INVENTION: alpha-MSH fragments
; NUMBER OF SEQUENCES: 34
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Yahwak & Associates
; STREET: 25 Skytop Drive
; CITY: Trumbull
; STATE: Connecticut
; COUNTRY: USA
; ZIP: 06611
; COMPUTER READABLE FORM:
; MEDIUM TYPE: floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Microsoft Word 5.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/349,902B
; FILING DATE: 6-DEC-1994
; CLASSIFICATION: 530
; ATTORNEY/AGENT INFORMATION:
; NAME: George M. Yahwak
; REGISTRATION NUMBER: 26,824
; REFERENCE/DOCKET NUMBER: UA 816 CIP
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (203)268-1951
; TELEFAX: (203)268-1951
; INFORMATION FOR SEQ ID NO: 16:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 10 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: cyclic
; MOLECULE TYPE: peptide
; FEATURE:
; OTHER INFORMATION: position 1 is
; OTHER INFORMATION: No. 5674839leucine; position 4 is D-phenylalane
US-08-349-902B-16

Query Match      88.9%; Score 32; DB 1; Length 10;
Best Local Similarity 83.3%; Pred. No. 9.8;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY      1 DHXRWK 6
Db      2 EHXRWK 7

; SEQUENCE CHARACTERISTICS:
; LENGTH: 10 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; FEATURE:
; OTHER INFORMATION: position 1 is
; OTHER INFORMATION: No. 5674839leucine; position 4 is D-phenylalane
US-08-349-902B-6

Query Match      86.1%; Score 31; DB 1; Length 7;
Best Local Similarity 100.0%; Pred. No. 3e+05;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 DHXRW 5
Db      2 DHXRW 6

RESULT 32
US-08-349-902B-10
; Sequence 10, Application US/08349902B
; Patent No. 5674839
; GENERAL INFORMATION:
; APPLICANT: Victor J. Hruby et al
; TITLE OF INVENTION: Linear and Cyclic Analogs of
; TITLE OF INVENTION: alpha-MSH fragments
; NUMBER OF SEQUENCES: 34
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Yahwak & Associates
; STREET: 25 Skytop Drive
; CITY: Trumbull
; STATE: Connecticut
; COUNTRY: USA
; ZIP: 06611
; COMPUTER READABLE FORM:
; MEDIUM TYPE: floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: MS-DOS
; OTHER INFORMATION: position 1 is
; OTHER INFORMATION: No. 5674839leucine; position 4 is D-phenylalane
US-08-349-902B-6
```

```

RESULT 31
US-08-349-902B-6
; Sequence 6, Application US/08349902B
; Patent No. 5674839
; GENERAL INFORMATION:
; APPLICANT: Victor J. Hruby et al
; TITLE OF INVENTION: Linear and Cyclic Analogs of
; TITLE OF INVENTION: alpha-MSH fragments
; NUMBER OF SEQUENCES: 34
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Yahwak & Associates
; STREET: 25 Skytop Drive
; CITY: Trumbull
; STATE: Connecticut
; COUNTRY: USA
; ZIP: 06611
; COMPUTER READABLE FORM:
; MEDIUM TYPE: floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Microsoft Word 5.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/349,902B
; FILING DATE: 6-DEC-1994
; CLASSIFICATION: 530
; ATTORNEY/AGENT INFORMATION:
; NAME: George M. Yahwak
; REGISTRATION NUMBER: 26,824
; REFERENCE/DOCKET NUMBER: UA 816 CIP
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (203)268-1951
; TELEFAX: (203)268-1951
; INFORMATION FOR SEQ ID NO: 6:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 7 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; FEATURE:
; OTHER INFORMATION: position 1 is
; OTHER INFORMATION: No. 5674839leucine; position 4 is D-phenylalane
US-08-349-902B-6

Query Match      86.1%; Score 31; DB 1; Length 7;
Best Local Similarity 100.0%; Pred. No. 3e+05;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 DHXRW 5
Db      2 DHXRW 6

RESULT 32
US-08-349-902B-10
; Sequence 10, Application US/08349902B
; Patent No. 5674839
; GENERAL INFORMATION:
; APPLICANT: Victor J. Hruby et al
; TITLE OF INVENTION: Linear and Cyclic Analogs of
; TITLE OF INVENTION: alpha-MSH fragments
; NUMBER OF SEQUENCES: 34
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Yahwak & Associates
; STREET: 25 Skytop Drive
; CITY: Trumbull
; STATE: Connecticut
; COUNTRY: USA
; ZIP: 06611
; COMPUTER READABLE FORM:
; MEDIUM TYPE: floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: MS-DOS
; OTHER INFORMATION: position 1 is
; OTHER INFORMATION: No. 5674839leucine; position 4 is D-phenylalane
US-08-349-902B-6
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Wed May 19 07:27:47 2004

```
; SOFTWARE: Microsoft Word 5.0
; CURRENT APPLICATION DATA: US/08/349,902B
; APPLICATION NUMBER: US/08/349,902B
; FILING DATE: 6-DEC-1994
; CLASSIFICATION: 530
; ATTORNEY/AGENT INFORMATION:
; NAME: George M. Yahwak
; REGISTRATION NUMBER: 26,824
; REFERENCE/DOCKET NUMBER: UA 816 CIP
; TELEPHONE: (203)268-1951
; TELEFAX: (203)268-1951
; INFORMATION FOR SEQ ID NO: 10:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 7 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; FEATURE:
; OTHER INFORMATION: position 1 is
; OTHER INFORMATION: No. 5674839leucine; position 4 is D-phenylalanine;
; OTHER INFORMATION: position 7 is Ornithine
; US-08-349-902B-10
;
; Query Match 86.1%; Score 31; DB 1; Length 7;
; Best Local Similarity 100.0%; Pred. No. 3e+05; 0; Indels 0; Gaps 0;
; Matches 5; Conservative 0; Mismatches 0;
;
; QY 1 DHXRW 5
; DB 2 DHXRW 6
;
; RESULT 33
; US-08-349-902B-12
; Sequence 12, Application US/08349902B
; Patent No. 5674839
; GENERAL INFORMATION:
; APPLICANT: Victor J. Hruba et al
; TITLE OF INVENTION: Linear and Cyclic Analogs of
; TITLE OF INVENTION: alpha-MSH fragments
; NUMBER OF SEQUENCES: 34
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Yahwak & Associates
; STREET: 25 Skytop Drive
; CITY: Trumbull
; STATE: Connecticut
; COUNTRY: USA
; ZIP: 06611
; COMPUTER READABLE FORM:
; MEDIUM TYPE: floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Microsoft Word 5.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/349,902B
; FILING DATE: 6-DEC-1994
; CLASSIFICATION: 530
; ATTORNEY/AGENT INFORMATION:
; NAME: George M. Yahwak
; REGISTRATION NUMBER: 26,824
; REFERENCE/DOCKET NUMBER: UA 816 CIP
; TELEPHONE: (203)268-1951
; TELEFAX: (203)268-1951
; INFORMATION FOR SEQ ID NO: 12:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 7 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; FEATURE:
; OTHER INFORMATION: position 1 is
; OTHER INFORMATION: No. 5674839leucine; position 4 is D-phenylalanine;
; OTHER INFORMATION: position 7 is Ornithine
; US-08-349-902B-12
;
; Query Match 86.1%; Score 31; DB 1; Length 7;
; Best Local Similarity 100.0%; Pred. No. 3e+05; 0; Indels 0; Gaps 0;
; Matches 5; Conservative 0; Mismatches 0;
;
; QY 1 DHXRW 5
; DB 2 DHXRW 6
;
; RESULT 34
; US-08-349-902B-13
; Sequence 13, Application US/08349902B
; Patent No. 5674839
; GENERAL INFORMATION:
; APPLICANT: Victor J. Hruba et al
; TITLE OF INVENTION: Linear and Cyclic Analogs of
; TITLE OF INVENTION: alpha-MSH fragments
; NUMBER OF SEQUENCES: 34
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Yahwak & Associates
; STREET: 25 Skytop Drive
; CITY: Trumbull
; STATE: Connecticut
; COUNTRY: USA
; ZIP: 06611
; COMPUTER READABLE FORM:
; MEDIUM TYPE: floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Microsoft Word 5.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/349,902B
; FILING DATE: 6-DEC-1994
; CLASSIFICATION: 530
; ATTORNEY/AGENT INFORMATION:
; NAME: George M. Yahwak
; REGISTRATION NUMBER: 26,824
; REFERENCE/DOCKET NUMBER: UA 816 CIP
; TELEPHONE: (203)268-1951
; TELEFAX: (203)268-1951
; INFORMATION FOR SEQ ID NO: 13:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 7 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; FEATURE:
; OTHER INFORMATION: position 1 is
; OTHER INFORMATION: No. 5674839leucine; position 4 is D-phenylalanine;
; OTHER INFORMATION: position 7 is 2,3-diaminopropionic acid
; US-08-349-902B-13
;
; Query Match 86.1%; Score 31; DB 1; Length 7;
; Best Local Similarity 100.0%; Pred. No. 3e+05; 0; Indels 0; Gaps 0;
; Matches 5; Conservative 0; Mismatches 0;
;
; QY 1 DHXRW 5
; DB 2 DHXRW 6
;
; RESULT 35
; US-08-349-902B-19
; Sequence 19, Application US/08349902B
; Patent No. 5674839
```

```
; FEATURE:
; OTHER INFORMATION: position 1 is
; OTHER INFORMATION: No. 5674839leucine; position 4 is D-phenylalanine;
; OTHER INFORMATION: position 7 is 2,4-diaminobutyric acid
; US-08-349-902B-12
;
; Query Match 86.1%; Score 31; DB 1; Length 7;
; Best Local Similarity 100.0%; Pred. No. 3e+05; 0; Indels 0; Gaps 0;
; Matches 5; Conservative 0; Mismatches 0;
;
; QY 1 DHXRW 5
; DB 2 DHXRW 6
;
; RESULT 34
; US-08-349-902B-13
; Sequence 13, Application US/08349902B
; Patent No. 5674839
; GENERAL INFORMATION:
; APPLICANT: Victor J. Hruba et al
; TITLE OF INVENTION: Linear and Cyclic Analogs of
; TITLE OF INVENTION: alpha-MSH fragments
; NUMBER OF SEQUENCES: 34
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Yahwak & Associates
; STREET: 25 Skytop Drive
; CITY: Trumbull
; STATE: Connecticut
; COUNTRY: USA
; ZIP: 06611
; COMPUTER READABLE FORM:
; MEDIUM TYPE: floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Microsoft Word 5.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/349,902B
; FILING DATE: 6-DEC-1994
; CLASSIFICATION: 530
; ATTORNEY/AGENT INFORMATION:
; NAME: George M. Yahwak
; REGISTRATION NUMBER: 26,824
; REFERENCE/DOCKET NUMBER: UA 816 CIP
; TELEPHONE: (203)268-1951
; TELEFAX: (203)268-1951
; INFORMATION FOR SEQ ID NO: 13:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 7 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; FEATURE:
; OTHER INFORMATION: position 1 is
; OTHER INFORMATION: No. 5674839leucine; position 4 is D-phenylalanine;
; OTHER INFORMATION: position 7 is 2,3-diaminopropionic acid
; US-08-349-902B-13
;
; Query Match 86.1%; Score 31; DB 1; Length 7;
; Best Local Similarity 100.0%; Pred. No. 3e+05; 0; Indels 0; Gaps 0;
; Matches 5; Conservative 0; Mismatches 0;
;
; QY 1 DHXRW 5
; DB 2 DHXRW 6
;
; RESULT 35
; US-08-349-902B-19
; Sequence 19, Application US/08349902B
; Patent No. 5674839
```

OTHER INFORMATION: position 1 is No. 5674839leucine;
position 4 is D-phenylalanine; position 7 is

OTHER INFORMATION: 2,4-diaminopropionic acid
US-08-349-902B-21

Query Match 86.1%; Score 31; DB 1; Length 7;
Best Local Similarity 100.0%; Pred. No. 3e+05;
Matches 5; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRW 5
DB 2 DHXRW 6

RESULT 38
US-09-240-078-55
Sequence 55, Application US/09240078
Patent No. 6303749
GENERAL INFORMATION:
APPLICANT: Jarosinski, Mark A.
TITLE OF INVENTION: No. 6303749el Agouti and Agouti-Related Peptide Analogs
FILE REFERENCE: A-569
CURRENT APPLICATION NUMBER: US/09/240,078
CURRENT FILING DATE: 1999-01-29
NUMBER OF SEQ ID NOS: 55
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 55
LENGTH: 6
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
NAME/KEY: PEPTIDE
LOCATION: (1)
OTHER INFORMATION: Xaa in position 1 represents norleucine, a
synthetic amino acid.
FEATURE:
OTHER INFORMATION: Description of Artificial Sequence: AGRP Peptide
OTHER INFORMATION: Analog
US-09-240-078-55

Query Match 83.3%; Score 30; DB 4; Length 6;
Best Local Similarity 80.0%; Pred. No. 3e+05;
Matches 4; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 2 HXRWK 6
DB 2 HPRWK 6

RESULT 39
US-09-147-915-5
Sequence 5, Application US/09147915A
Patent No. 6184034
GENERAL INFORMATION:
APPLICANT: Eastman, Alan
TITLE OF INVENTION: Deoxyribonuclease II Proteins and cDNAs
FILE REFERENCE: DC-0097
CURRENT APPLICATION NUMBER: US/09/147,915A
CURRENT FILING DATE: 1999-03-23
EARLIER APPLICATION NUMBER: PCT/US97/18262
EARLIER FILING DATE: 1997-10-09
EARLIER APPLICATION NUMBER: 60/028,539
EARLIER FILING DATE: 1996-10-15
NUMBER OF SEQ ID NOS: 18
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 5
LENGTH: 8
TYPE: PRT
ORGANISM: Sus sp.
US-09-147-915-5

Query Match 77.8%; Score 28; DB 3; Length 8;
Best Local Similarity 60.0%; Pred. No. 3e+05;
Matches 3; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRW 5
DB 4 DHXRW 8

RESULT 40
US-09-374-827-1
Sequence 1, Application US/09374827
Patent No. 6603058
GENERAL INFORMATION:
APPLICANT: Brennart, Miles B.
TITLE OF INVENTION: "NON-HUMAN ANIMAL MODEL FOR OBESITY AND USES THEREOF"
FILE REFERENCE: 3718-5
CURRENT APPLICATION NUMBER: US/09/374,827
CURRENT FILING DATE: 1999-08-12
EARLIER APPLICATION NUMBER: 60/111,581
EARLIER FILING DATE: 1998-12-09
EARLIER APPLICATION NUMBER: 60/146,306
EARLIER FILING DATE: 1999-07-29
NUMBER OF SEQ ID NOS: 8
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 1
LENGTH: 5
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
NAME/KEY: DOMAIN
LOCATION: (1)..(5)
OTHER INFORMATION: conserved region
US-09-374-827-1

Query Match 75.0%; Score 27; DB 4; Length 5;
Best Local Similarity 60.0%; Pred. No. 3e+05;
Matches 3; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRW 5
DB 1 EHFRW 5

RESULT 41
US-09-353-650-1
Sequence 1, Application US/09353650
Patent No. 6337315
GENERAL INFORMATION:
APPLICANT: MAHE, Yann
APPLICANT: BILLONI, Nelly
APPLICANT: BRETON, Lionel
APPLICANT: BUI-BERTRAND, Lien
TITLE OF INVENTION: ANTI-INFLAMMATORY COMPOSITIONS COMPRISING PEPTIDE
DERIVATIVES OF ALPHA-MSH/ALGAL EXTRACTS
FILE REFERENCE: 018600-303
CURRENT APPLICATION NUMBER: US/09/353,650
CURRENT FILING DATE: 1999-07-15
EARLIER APPLICATION NUMBER: FR 98-09055
EARLIER FILING DATE: 1998-07-15
NUMBER OF SEQ ID NOS: 4
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 1
LENGTH: 6
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
NAME/KEY: PEPTIDE
LOCATION: (3)
OTHER INFORMATION: Amino acid 3 is xaa wherein xaa = D.homoPhe.
FEATURE:
OTHER INFORMATION: Description of Artificial
OTHER INFORMATION: Sequence:anti-inflammatory activity from alpha-MSH
OTHER INFORMATION: conjugated to thioctic acid.
US-09-353-650-1

Wed May 19 07:27:47 2004

```

Query Match      75.0%; Score 27; DB 4; Length 6;
Best Local Similarity 80.0%; Pred. No. 3e+05;
Matches 4; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRW 5
   :|||
DB 1 EHXRW 5

RESULT 42
US-09-353-650-2
; Sequence 2, Application US/09353650
; Patent No. 6337315
; GENERAL INFORMATION:
; APPLICANT: MAHE, Yann
; APPLICANT: BILLONI, Nelly
; APPLICANT: BRETON, Lionel
; APPLICANT: BUI-BERTRAND, Lien
; TITLE OF INVENTION: ANTI-INFLAMMATORY COMPOSITIONS COMPRISING PEPTIDE
; TITLE OF INVENTION: DERIVATIVES OF ALPHA-MSH/ALGAL EXTRACTS
; FILE REFERENCE: 016800-303
; CURRENT APPLICATION NUMBER: US/09/353,650
; CURRENT FILING DATE: 1999-07-15
; EARLIER APPLICATION NUMBER: FR 98-09055
; EARLIER FILING DATE: 1998-07-15
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 2
; LENGTH: 6
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: PEPTIDE
; LOCATION: (3)
; OTHER INFORMATION: Amino acid 3 is xaa wherein xaa = ParaFluorophe.
; OTHER INFORMATION: Description of Artificial
; OTHER INFORMATION: Sequence:anti-inflammatory activity from alpha-MSH
; OTHER INFORMATION: conjugated to thioctic acid.
US-09-353-650-2

Query Match      75.0%; Score 27; DB 4; Length 6;
Best Local Similarity 80.0%; Pred. No. 3e+05;
Matches 4; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRW 5
   :|||
DB 1 EHXRW 5

RESULT 43
5472855-19
; Patent No. 5472855
; APPLICANT: CARTER, PAUL J. WELLS, JAMES A.
; TITLE OF INVENTION: SUBSTRATE ASSISTED CATALYSIS
; NUMBER OF SEQUENCES: 31
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/287,964
; FILING DATE: 22-SEP-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 90,902
; FILING DATE: 12-JUL-1993
; APPLICATION NUMBER: 823,039
; FILING DATE: 14-JAN-1992
; APPLICATION NUMBER: 35,652
; FILING DATE: 06-APR-1987
; APPLICATION NUMBER: 334,081
; FILING DATE: 04-APR-1989
; APPLICATION NUMBER: 127,134
; FILING DATE: 01-DEC-1987
; APPLICATION NUMBER: 846,627
; FILING DATE: 01-APR-1986

Query Match      75.0%; Score 27; DB 1; Length 7;
Best Local Similarity 80.0%; Pred. No. 3e+05;
Matches 4; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRW 5
   :|||
DB 1 EHXRW 5

RESULT 44
US-08-349-902B-9
; Sequence 9, Application US/08349902B
; Patent No. 5674839
; GENERAL INFORMATION:
; APPLICANT: Victor J. Hruby et al
; TITLE OF INVENTION: Linear and Cyclic Analogs of
; TITLE OF INVENTION: alpha-MSH fragments
; NUMBER OF SEQUENCES: 34
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Yahwak & Associates
; STREET: 25 Skytop Drive
; CITY: Trumbull
; STATE: Connecticut
; COUNTRY: USA
; ZIP: 06611
; COMPUTER READABLE FORM:
; MEDIUM TYPE: floppy disk
; COMPUTER: Macintosh
; OPERATING SYSTEM: MS-DOS
; SOFTWARE: Microsoft Word 5.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/349,902B
; FILING DATE: 6-DEC-1994
; CLASSIFICATION: 530
; ATTORNEY/AGENT INFORMATION:
; NAME: George M. Yahwak
; REGISTRATION NUMBER: 26,824
; REFERENCE/DOCKET NUMBER: UA 816 CIP
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (203)268-1951
; TELEFAX: (203)268-1951
; INFORMATION FOR SEQ ID NO: 9:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 7 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; FEATURE:
; OTHER INFORMATION: position 1 is
; OTHER INFORMATION: No. 5674839leucine; position 4 is D-phenylalanine;
; OTHER INFORMATION: position 7 is Ornithine
US-08-349-902B-9

Query Match      75.0%; Score 27; DB 1; Length 7;
Best Local Similarity 80.0%; Pred. No. 3e+05;
Matches 4; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRW 5
   :|||
DB 1 EHXRW 5

```

Db :|||||
2 EHXRW 6

RESULT 45

US-08-349-902B-11

; Sequence 11, Application US/08349902B

; Patent No. 5674839

; GENERAL INFORMATION:

; APPLICANT: Victor J. Hruby et al

; TITLE OF INVENTION: Linear and Cyclic Analogs of

; TITLE OF INVENTION: alpha-MSH fragments

; NUMBER OF SEQUENCES: 34

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Yahwak & Associates

; STREET: 25 Skytop Drive

; CITY: Trumbull

; STATE: Connecticut

; COUNTRY: USA

; ZIP: 06611

; COMPUTER READABLE FORM:

; MEDIUM TYPE: floppy disk

; COMPUTER: Macintosh

; OPERATING SYSTEM: MS-DOS

; SOFTWARE: Microsoft Word 5.0

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/349,902B

; FILING DATE: 6-DEC-1994

; CLASSIFICATION: 530

; ATTORNEY/AGENT INFORMATION:

; NAME: George M. Yahwak

; REGISTRATION NUMBER: 26,824

; REFERENCE/DOCKET NUMBER: UA 816 CIP

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: (203)268-1951

; TELEFAX: (203)268-1951

; INFORMATION FOR SEQ ID NO: 11:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 7 amino acids

; TYPE: amino acid

; STRANDEDNESS: single

; TOPOLOGY: linear

; MOLECULE TYPE: peptide

; FEATURE:

; OTHER INFORMATION: position 1 is

; OTHER INFORMATION: No. 5674839leucine; position 4 is D-phenylalaine;

; OTHER INFORMATION: position 7 is 2,4-diaminobutyric acid

; US-08-349-902B-11

Query Match 75.0%; Score 27; DB 1; Length 7;
Best Local Similarity 80.0%; Pred. No. 3e+05; 0; Indels 0; Gaps 0;
Matches 4; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRW 5

:|||||

Db 2 EHXRW 6

Search completed: May 18, 2004, 15:57:52

Job time : 23 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: May 18, 2004, 15:56:57 ; Search time 41 Seconds
(without alignments)
40.721 Million cell updates/sec

Title: CLAIM11

Perfect score: 36

Sequence: 1 DHXRWK 6

Scoring table: BLOSUM62DX

Gapop 10.0 , Gapext 0.5

Searched: 1145568 seqs, 278261457 residues

Total number of hits satisfying chosen parameters: 146124

Minimum DB seq length: 0

Maximum DB seq length: 10

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

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Published Applications AA:*
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18: /cgn2_6/ptodata/1/pubpaa/US60_PUBCOMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	36	100.0	7	9	US-09-953-349-5
2	36	100.0	7	9	US-09-953-349-6
3	36	100.0	7	10	US-09-458-579-5
4	36	100.0	7	10	US-09-458-579-6
5	36	100.0	7	14	US-10-074-754-5
6	31	86.1	10	10	US-09-809-638-66
7	27	75.0	5	9	US-09-953-349-1
8	27	75.0	5	10	US-09-458-579-1
9	27	75.0	5	13	US-10-074-956-6
10	27	75.0	7	12	US-09-774-282-2
11	27	75.0	7	14	US-10-235-682-2
12	27	75.0	7	14	US-10-426-647-2
13	27	75.0	7	15	US-10-420-578-2
14	27	75.0	7	15	US-10-298-142A-2
15	27	75.0	8	14	US-10-080-263C-30

16	75.0	10	9	US-09-828-272A-2	Sequence 2, Appli
17	75.0	10	14	US-10-023-287-2	Sequence 2, Appli
18	72.2	5	12	US-10-436-549-389	Sequence 389, App
19	72.2	9	10	US-09-791-393-184	Sequence 184, App
20	72.2	9	10	US-09-791-389-184	Sequence 184, App
21	72.2	9	10	US-09-932-185-157	Sequence 54, Appl
22	72.2	10	10	US-09-932-185-157	Sequence 157, App
23	69.4	4	9	US-09-929-818-206	Sequence 206, App
24	69.4	4	12	US-10-640-755-1	Sequence 1, Appli
25	69.4	4	12	US-09-883-069-4	Sequence 4, Appli
26	69.4	4	12	US-10-139-624-1	Sequence 1, Appli
27	69.4	4	13	US-10-040-547-1	Sequence 1, Appli
28	69.4	4	16	US-10-463-016-1	Sequence 1, Appli
29	69.4	6	9	US-09-990-762-12	Sequence 12, Appl
30	69.4	6	10	US-09-858-852A-12	Sequence 12, Appl
31	69.4	6	15	US-10-297-976-1	Sequence 3, Appli
32	69.4	7	9	US-09-953-349-3	Sequence 16, Appl
33	69.4	7	10	US-09-575-847-16	Sequence 3, Appli
34	69.4	7	10	US-09-458-579-3	Sequence 45, Appl
35	69.4	7	12	US-10-258-146A-45	Sequence 190, App
36	69.4	7	12	US-10-328-953-190	Sequence 187, App
37	69.4	7	14	US-10-052-578-187	Sequence 32, Appl
38	69.4	7	14	US-10-080-263C-32	Sequence 187, App
39	69.4	7	14	US-10-053-520-187	Sequence 187, App
40	69.4	7	14	US-10-053-498B-187	Sequence 16, Appl
41	69.4	7	15	US-10-620-099-16	Sequence 3, Appli
42	69.4	8	9	US-09-828-272A-3	Sequence 3, Appli
43	69.4	8	12	US-09-774-282-3	Sequence 3, Appli
44	69.4	8	14	US-10-235-682-3	Sequence 2, Appli
45	69.4	8	14	US-10-015-055-2	Sequence 2, Appli

ALIGNMENTS

RESULT 1

US-09-953-349-5

; Sequence 5, Application US/09953349

; Patent No. US20020099014A1

; GENERAL INFORMATION:

; APPLICANT: Brennan, Miles

; APPLICANT: Hochgeschwender, Ute

; TITLE OF INVENTION: Method for Treatment of Insulin Resistance in Obesity and Diabetes

; FILE REFERENCE: 3718-7

; CURRENT APPLICATION NUMBER: US/09/953,349

; CURRENT FILING DATE: 2001-09-13

; PRIOR APPLICATION NUMBER: 60/232,292

; PRIOR FILING DATE: 2000-09-13

; NUMBER OF SEQ ID NOS: 8

; SOFTWARE: PatentIn version 3.0

; SEQ ID NO 5

; LENGTH: 7

; TYPE: PRT

; ORGANISM: Artificial sequence

; FEATURE:

; NAME/KEY: MOD RES

; LOCATION: (1)..(1)

; OTHER INFORMATION: Nle

; NAME/KEY: MOD RES

; LOCATION: (4)..(4)

; OTHER INFORMATION: Xaa = D-naphthylalanine

; NAME/KEY: PEPTIDE

; LOCATION: (1)..(7)

; OTHER INFORMATION: analog

US-09-953-349-5

Query Match 100.0%; Score 36; DB 9; Length 7;

Best Local Similarity 100.0%; Pred. No. 1e+06; Indels 0; Gaps 0;

Matches 6; Conservative 0; Mismatches 0;

QY 1 DHXRWK 6

2 DHXRWK 7

Db

Wed May 19 07:27:47 2004

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; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 5
; LENGTH: 7
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (1)
; OTHER INFORMATION: Nle
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (4)
; OTHER INFORMATION: Xaa = D-naphthylalanine
; FEATURE:
; NAME/KEY: PEPTIDE
; LOCATION: (1)..(7)
; OTHER INFORMATION: analog
; US-09-458-579-5

Query Match      100.0%; Score 36; DB 10; Length 7;
Best Local Similarity 100.0%; Pred. No. 1e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY      1 DHXRWK 6
        |||
Db       2 DHXRWK 7

RESULT 4
US-09-458-579-6
; Sequence 6, Application US/09458579
; Publication No. US20030144174A1
; GENERAL INFORMATION:
; APPLICANT: Brennan, Miles B.
; APPLICANT: Hochgeschwender, Ute
; TITLE OF INVENTION: METHODS FOR IDENTIFYING COMPOUNDS USEFUL FOR THE
; TITLE OF INVENTION: REGULATION OF BODY WEIGHT AND ASSOCIATED CONDITIONS
; FILE REFERENCE: 3718-6
; CURRENT APPLICATION NUMBER: US/09/458,579
; CURRENT FILING DATE: 1999-12-09
; EARLIER APPLICATION NUMBER: 60/111,581
; EARLIER FILING DATE: 1998-12-09
; EARLIER APPLICATION NUMBER: 60/146,306
; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,305
; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,304
; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,303
; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,302
; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,301
; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,300
; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,299
; EARLIER FILING DATE: 1999-07-29
; NUMBER OF SEQ ID NOS: 6
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 6
; LENGTH: 7
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (1)
; OTHER INFORMATION: Xaa = Nle
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (4)
; OTHER INFORMATION: Phe = D-para-iodo-phenylalanine
; FEATURE:

; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 5
; LENGTH: 7
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (1)
; OTHER INFORMATION: Nle
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (4)
; OTHER INFORMATION: Xaa = D-naphthylalanine
; FEATURE:
; NAME/KEY: PEPTIDE
; LOCATION: (1)..(7)
; OTHER INFORMATION: analog
; US-09-458-579-5

Query Match      100.0%; Score 36; DB 9; Length 7;
Best Local Similarity 83.3%; Pred. No. 1e+06;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY      1 DHXRWK 6
        |||
Db       2 DHFRWK 7

RESULT 3
US-09-458-579-5
; Sequence 5, Application US/09458579
; Publication No. US20030144174A1
; GENERAL INFORMATION:
; APPLICANT: Brennan, Miles B.
; APPLICANT: Hochgeschwender, Ute
; TITLE OF INVENTION: METHODS FOR IDENTIFYING COMPOUNDS USEFUL FOR THE
; TITLE OF INVENTION: REGULATION OF BODY WEIGHT AND ASSOCIATED CONDITIONS
; FILE REFERENCE: 3718-6
; CURRENT APPLICATION NUMBER: US/09/458,579
; CURRENT FILING DATE: 1999-12-09
; EARLIER APPLICATION NUMBER: 60/111,581
; EARLIER FILING DATE: 1998-12-09
; EARLIER APPLICATION NUMBER: 60/146,306
; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,305
; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,304
; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,303
; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,302
; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,301
; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,300
; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,299
; EARLIER FILING DATE: 1999-07-29
; NUMBER OF SEQ ID NOS: 6
```



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; NAME/KEY: PEPTIDE
; LOCATION: (1)..(7)
; OTHER INFORMATION: analog
US-09-458-579-6

Query Match 100.0%; Score 36; DB 10; Length 7;
Best Local Similarity 83.3%; Pred. No. 1e+06;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRW 6
   ||:|
Db 2 DHERW 7

RESULT 5
US-10-074-754-5
; Sequence 5, Application US/10074754
; Publication No. US20030113263A1
; GENERAL INFORMATION:
; APPLICANT: Marks, Daniel L.
; TITLE OF INVENTION: Methods and Reagents for Discovering and Using
; TITLE OF INVENTION: Mammalian Melanocortin Receptor Antagonists to Treat
; TITLE OF INVENTION: Cachexia
; FILE REFERENCE: 96-886
; CURRENT APPLICATION NUMBER: US/10/074,754
; CURRENT FILING DATE: 2002-02-13
; NUMBER OF SEQ ID NOS: 10
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 5
; LENGTH: 7
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (1)
; OTHER INFORMATION: "Xaa" is norleucine
; FEATURE:
; NAME/KEY: SITE
; LOCATION: (4)
; OTHER INFORMATION: "Xaa" is naphthyl-D-alanine
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: peptide
; OTHER INFORMATION: cyclized between the epsilon amino group of the
; OTHER INFORMATION: lysine and the sidechain carboxyl group of the
; OTHER INFORMATION: aspartic acid
US-10-074-754-5

Query Match 100.0%; Score 36; DB 14; Length 7;
Best Local Similarity 100.0%; Pred. No. 1e+06;
Matches 6; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRW 6
   ||:|
Db 2 DHXRW 7

RESULT 6
US-09-809-638-66
; Sequence 66, Application US/09809638
; Publication No. US20030059895A1
; GENERAL INFORMATION:
; APPLICANT: Mary Faris
; APPLICANT: Pia M. Challita-Bid
; APPLICANT: Steve Chappell Mitchell
; APPLICANT: Daniel E.H. Afar
; APPLICANT: Arthur B. Raitano
; APPLICANT: Ava Jakobovits
; TITLE OF INVENTION: 125PSC8: A TISSUE SPECIFIC PROTEIN
; TITLE OF INVENTION: HIGHLY EXPRESSED IN VARIOUS CANCERS
; FILE REFERENCE: 129.350S01
; CURRENT APPLICATION NUMBER: US/09/809,638
; CURRENT FILING DATE: 2001-03-14

; NAME/KEY: FASTSEQ
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 66
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-809-638-66

Query Match 86.1%; Score 31; DB 10; Length 10;
Best Local Similarity 80.0%; Pred. No. 1.1e+02;
Matches 4; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRW 5
   ||:|
Db 3 DHDWR 7

RESULT 7
US-09-953-349-1
; Sequence 1, Application US/09953349
; Patent No. US20020099014A1
; GENERAL INFORMATION:
; APPLICANT: Brennan, Miles
; TITLE OF INVENTION: Method for Treatment of Insulin Resistance in Obesity and Diabetes
; FILE REFERENCE: 3718-7
; CURRENT APPLICATION NUMBER: US/09/953,349
; CURRENT FILING DATE: 2001-09-13
; PRIOR APPLICATION NUMBER: 60/232,292
; PRIOR FILING DATE: 2000-09-13
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 1
; LENGTH: 5
; TYPE: PRT
; ORGANISM: Artificial sequence
; FEATURE:
; NAME/KEY: DOMAIN
; LOCATION: (1)..(5)
; OTHER INFORMATION: conserved region
US-09-953-349-1

Query Match 75.0%; Score 27; DB 9; Length 5;
Best Local Similarity 60.0%; Pred. No. 1e+06;
Matches 3; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHXRW 5
   ||:|
Db 1 EHRW 5

RESULT 8
US-09-458-579-1
; Sequence 1, Application US/09458579
; Publication No. US20030144174A1
; GENERAL INFORMATION:
; APPLICANT: Brennan, Miles B.
; TITLE OF INVENTION: METHODS FOR IDENTIFYING COMPOUNDS USEFUL FOR THE
; TITLE OF INVENTION: REGULATION OF BODY WEIGHT AND ASSOCIATED CONDITIONS
; FILE REFERENCE: 3718-6
; CURRENT APPLICATION NUMBER: US/09/458,579
; CURRENT FILING DATE: 1999-12-09
; EARLIER APPLICATION NUMBER: 60/111,581
; EARLIER FILING DATE: 1998-12-09
; EARLIER APPLICATION NUMBER: 60/146,306
; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,305
; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,304
; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,303
; EARLIER FILING DATE: 1999-07-29

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; EARLIER APPLICATION NUMBER: 60/146,302
; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,301
; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,300
; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,299
; EARLIER FILING DATE: 1999-07-29
; NUMBER OF SEQ ID NOS: 6
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 1
; LENGTH: 5
; TYPE: PRT
; ORGANISM: Artificial Sequence
; NAME/KEY: DOMAIN
; LOCATION: (1)..(5)
; OTHER INFORMATION: conserved region
US-09-458-579-1
```

```
Query Match 75.0%; Score 27; DB 10; Length 5;
Best Local Similarity 60.0%; Pred. No. 1e+06;
Matches 3; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
```

```
QY 1 DHXRW 5
Db 1 EHPFW 5
```

```
RESULT 9
US-10-074-956-6
; Sequence 6, Application US/10074956
; Publication No. US20020193332A1
; GENERAL INFORMATION:
; APPLICANT: Hedley, Mary Lynne
; TITLE OF INVENTION: METHODS OF TREATING BLADDER DISORDERS
; FILE REFERENCE: 08191-022001
; CURRENT APPLICATION NUMBER: US/10/074,956
; PRIOR FILING DATE: 2002-06-10
; PRIOR APPLICATION NUMBER: 60/268,175
; PRIOR FILING DATE: 2001-02-12
; NUMBER OF SEQ ID NOS: 29
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 6
; LENGTH: 5
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-074-956-6
```

```
Query Match 75.0%; Score 27; DB 13; Length 5;
Best Local Similarity 60.0%; Pred. No. 1e+06;
Matches 3; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
```

```
QY 1 DHXRW 5
Db 1 EHPFW 5
```

```
RESULT 10
US-09-774-282-2
; Sequence 2, Application US/09774282
; Publication No. US20020146374A1
; GENERAL INFORMATION:
; APPLICANT: LIPTON, JAMES M.
; TITLE OF INVENTION: A COMPOUND AND METHOD OF TREATMENT FOR FUNGAL PATHOLOGIES
; FILE REFERENCE: 54275.8010.US00
; CURRENT APPLICATION NUMBER: US/09/774,282
; PRIOR FILING DATE: 2001-01-29
; NUMBER OF SEQ ID NOS: 10
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 2
; LENGTH: 7
; TYPE: PRT
; ORGANISM: Artificial Sequence
```

```
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: peptide
; FEATURE:
; OTHER INFORMATION: n-term may or may not be acetylated
; FEATURE:
; OTHER INFORMATION: c-term may or may not be amidated
US-09-774-282-2
```

```
Query Match 75.0%; Score 27; DB 12; Length 7;
Best Local Similarity 60.0%; Pred. No. 1e+06;
Matches 3; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
```

```
QY 1 DHXRW 5
Db 2 EHPFW 6
```

```
RESULT 11
US-10-235-682-2
; Sequence 2, Application US/10235682
; Publication No. US20030108523A1
; GENERAL INFORMATION:
; APPLICANT: Lipton, James
; APPLICANT: Catania, Anna P.
; TITLE OF INVENTION: A CANCER TREATMENT SYSTEM
; FILE REFERENCE: 8022.US01
; CURRENT APPLICATION NUMBER: US/10/235,682
; CURRENT FILING DATE: 2002-09-05
; PRIOR APPLICATION NUMBER: US 60/317,514
; PRIOR FILING DATE: 2002-09-05
; NUMBER OF SEQ ID NOS: 9
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
; LENGTH: 7
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Designed polypeptide with anti-inflammatory, anti-microbial, ant
; OTHER INFORMATION: i-fungal, and anti-viral properties.
US-10-235-682-2
```

```
Query Match 75.0%; Score 27; DB 14; Length 7;
Best Local Similarity 60.0%; Pred. No. 1e+06;
Matches 3; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
```

```
QY 1 DHXRW 5
Db 2 EHPFW 6
```

```
RESULT 12
US-10-426-647-2
; Sequence 2, Application US/10426647
; Publication No. US20030176353A1
; GENERAL INFORMATION:
; APPLICANT: Lipton, J.M., Catania A. P.
; TITLE OF INVENTION: A URO-GENITAL CONDITION TREATMENT SYSTEM
; FILE REFERENCE: 252/100
; CURRENT APPLICATION NUMBER: US/10/426,647
; CURRENT FILING DATE: 2003-04-29
; PRIOR APPLICATION NUMBER: US/09/535,066B
; PRIOR FILING DATE: 2000-03-23
; PRIOR APPLICATION NUMBER: US 60/126,233
; PRIOR FILING DATE: 1999-03-24
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: Microsoft Word
; SEQ ID NO 2
; LENGTH: 7
; TYPE: PRT
; ORGANISM: Artificial Sequence
```

FEATURE:
; OTHER INFORMATION: Designed polypeptide with anti-inflammatory, anti-microbial,
; OTHER INFORMATION: anti-fungal, and anti-viral properties.

US-10-426-647-2

Query Match 75.0%; Score 27; DB 14; Length 7;
Best Local Similarity 60.0%; Pred. No. 1e+06;
Matches 3; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DHXRW 5
:|:|:
Db 2 EHRW 6

RESULT 13
US-10-420-578-2
; Sequence 2, Application US/10420578
; Publication No. US20040006024A1
; GENERAL INFORMATION:
; APPLICANT: Lipton, J.M., Catania A. P.
; TITLE OF INVENTION: A URO-GENITAL CONDITION TREATMENT SYSTEM
; FILE REFERENCE: 252/100
; CURRENT APPLICATION NUMBER: US/10/420,578
; CURRENT FILING DATE: 2003-04-21
; PRIOR APPLICATION NUMBER: US/09/535,066B
; PRIOR FILING DATE: 2000-03-23
; PRIOR APPLICATION NUMBER: US 60/126,233
; PRIOR FILING DATE: 1999-03-24
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: Microsoft Word
; SEQ ID NO 2
; LENGTH: 7
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Designed polypeptide with anti-inflammatory, anti-microbial,
; OTHER INFORMATION: anti-fungal, and anti-viral properties.

US-10-420-578-2

Query Match 75.0%; Score 27; DB 15; Length 7;
Best Local Similarity 60.0%; Pred. No. 1e+06;
Matches 3; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DHXRW 5
:|:|:
Db 2 EHRW 6

RESULT 14
US-10-298-142A-2
; Sequence 2, Application US/10298142A
; Publication No. US20040009181A1
; GENERAL INFORMATION:
; APPLICANT: Zengen, Inc.
; APPLICANT: Lipton, James M.
; TITLE OF INVENTION: Treatment of Ophthalmic Conditions
; FILE REFERENCE: 54275.8019,US00
; CURRENT APPLICATION NUMBER: US/10/298,142A
; CURRENT FILING DATE: 2002-11-15
; PRIOR APPLICATION NUMBER: US 60/382,887
; PRIOR FILING DATE: 2002-05-21
; NUMBER OF SEQ ID NOS: 10
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
; LENGTH: 7
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Designed polypeptide with anti-inflammatory, anti-bacterial,
; OTHER INFORMATION: anti-fungal and antipyrretic properties.

US-10-298-142A-2

Query Match 75.0%; Score 27; DB 15; Length 7;

Best Local Similarity 60.0%; Pred. No. 1e+06;
Matches 3; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DHXRW 5
:|:|:
Db 2 EHRW 6

RESULT 15
US-10-080-263C-30
; Sequence 30, Application US/10080263C
; Publication No. US20030143670A1
; GENERAL INFORMATION:
; APPLICANT: Bonini, James A.
; APPLICANT: Huang, Ling-Yan
; APPLICANT: Wilson, Amy
; TITLE OF INVENTION: DNA ENCODING SNORF44 RECEPTOR
; FILE REFERENCE: 1795/59370-A/JPM/ADM/ANX
; CURRENT APPLICATION NUMBER: US/10/080,263C
; CURRENT FILING DATE: 2002-02-20
; NUMBER OF SEQ ID NOS: 33
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 30
; LENGTH: 8
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-10-080-263C-30

Query Match 75.0%; Score 27; DB 14; Length 8;
Best Local Similarity 60.0%; Pred. No. 1e+06;
Matches 3; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DHXRW 5
:|:|:
Db 4 EHRW 8

RESULT 16
US-09-828-272A-2
; Sequence 2, Application US/09828272A
; Publication No. US20020183255A1
; GENERAL INFORMATION:
; APPLICANT: LIPTON, James M.
; APPLICANT: CATANIA, Anna P.
; TITLE OF INVENTION: USE OF KPV TRIPEPTIDE FOR DERMATOLOGICAL DISORDERS
; FILE REFERENCE: 259/058
; CURRENT APPLICATION NUMBER: US/09/828,272A
; CURRENT FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Designed polypeptide with anti-inflammatory, anti-bacterial, anti
; OTHER INFORMATION: -fungal and antipyrretic properties.

Query Match 75.0%; Score 27; DB 9; Length 10;
Best Local Similarity 60.0%; Pred. No. 4.7e+02;
Matches 3; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DHXRW 5
:|:|:
Db 2 EHRW 6

RESULT 17
US-10-023-287-2
; Sequence 2, Application US/10023287
; Publication No. US20030129156A1
; GENERAL INFORMATION:

; APPLICANT: LIPTON, James M
; APPLICANT: CATANIA, Anna P
; TITLE OF INVENTION: USE OF A POLYPEPTIDE FOR TREATMENT OF PRURITIS IN ANIMALS
; FILE REFERENCE: 259/060
; CURRENT APPLICATION NUMBER: US/10/023,287
; CURRENT FILING DATE: 2002-10-01
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 2
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Designed polypeptide with anti-inflammatory, anti-bacterial, anti-
; OTHER INFORMATION: -fungal and antipyretic properties.
US-10-023-287-2

Query Match 75.0%; Score 27; DB 14; Length 10;
Best Local Similarity 60.0%; Pred. No. 4.7e+02; Indels 0; Gaps 0;
Matches 3; Conservative 2; Mismatches 0;

QY 1 DHXRW 5
DB 2 EHFW 6

RESULT 18
US-10-436-549-389
; Sequence 389, Application US/10436549
; Publication No. US20040039307A1
; GENERAL INFORMATION:
; APPLICANT: Lee, Frank D.
; APPLICANT: Meng, Dr. Xun
; APPLICANT: Chan, John W.
; APPLICANT: Zhang, Shengsheng
; APPLICANT: Benkovic, Stephen J.
; TITLE OF INVENTION: UNIQUE RECOGNITION SEQUENCES AND METHODS OF USE THEREOF IN
; FILE REFERENCE: ENGE-P01-001
; CURRENT APPLICATION NUMBER: US/10/436,549
; CURRENT FILING DATE: 2003-05-12
; PRIOR APPLICATION NUMBER: 60/379,626
; PRIOR FILING DATE: 2002-05-10
; PRIOR APPLICATION NUMBER: 60/393,233
; PRIOR FILING DATE: 2002-07-01
; PRIOR APPLICATION NUMBER: 60/393,235
; PRIOR FILING DATE: 2002-07-01
; PRIOR APPLICATION NUMBER: 60/393,211
; PRIOR FILING DATE: 2002-07-01
; PRIOR APPLICATION NUMBER: 60/393,280
; PRIOR FILING DATE: 2002-07-01
; PRIOR APPLICATION NUMBER: 60/393,197
; PRIOR FILING DATE: 2002-07-01
; PRIOR APPLICATION NUMBER: 60/393,223
; PRIOR FILING DATE: 2002-07-01
; PRIOR APPLICATION NUMBER: 60/430,948
; PRIOR FILING DATE: 2002-12-04
; PRIOR APPLICATION NUMBER: 60/433,319
; PRIOR FILING DATE: 2002-12-13
; PRIOR APPLICATION NUMBER: 60/393,137
; PRIOR FILING DATE: 2002-07-01
; NUMBER OF SEQ ID NOS: 614
; SOFTWARE: Patentin version 3.2
; SEQ ID NO 389
; LENGTH: 5
; TYPE: PRT
; ORGANISM: Human
US-10-436-549-389

Query Match 72.2%; Score 26; DB 12; Length 5;
Best Local Similarity 60.0%; Pred. No. 1e+06; Indels 0; Gaps 0;
Matches 3; Conservative 2; Mismatches 0;

QY 2 HXRWK 6
DB 1 HKQWK 5

RESULT 19
US-09-791-393-184
; Sequence 184, Application US/09791393
; Publication No. US20030032200A1
; GENERAL INFORMATION:
; APPLICANT: Herath, Herath Mudiyanseelage Athula Chandrasiri
; APPLICANT: Parekh, Rajesh Bhikhu
; APPLICANT: Rohlf, Christian
; TITLE OF INVENTION: Proteins, Genes and Their Use for
; TITLE OF INVENTION: Diagnosis, and Treatment of Bipolar Affective Disorder (BAD)
; TITLE OF INVENTION: and Unipolar Depression
; FILE REFERENCE: 2543-1-001 N1
; CURRENT APPLICATION NUMBER: US/09/791,393
; CURRENT FILING DATE: 2002-01-02
; EARLIER APPLICATION NUMBER: GB 0004412.3
; EARLIER FILING DATE: 2000-02-24
; EARLIER APPLICATION NUMBER: GB 0030050.9
; EARLIER FILING DATE: 2000-12-08
; EARLIER APPLICATION NUMBER: US 60/254,830
; EARLIER FILING DATE: 2000-12-12
; NUMBER OF SEQ ID NOS: 308
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 184
; LENGTH: 9
; TYPE: PRT
; ORGANISM: homo sapien
US-09-791-393-184

Query Match 72.2%; Score 26; DB 10; Length 9;
Best Local Similarity 60.0%; Pred. No. 1e+06; Indels 0; Gaps 0;
Matches 3; Conservative 2; Mismatches 0;

QY 2 HXRWK 6
DB 5 HGQWK 9

RESULT 20
US-09-791-389-184
; Sequence 184, Application US/09791389
; Publication No. US20030032773A1
; GENERAL INFORMATION:
; APPLICANT: Herath, Herath Mudiyanseelage Athula Chandrasiri
; APPLICANT: Parekh, Rajesh Bhikhu
; APPLICANT: Rohlf, Christian
; APPLICANT: Terrett, Jonathan Alexander
; APPLICANT: Tyson, Kerry Louise
; TITLE OF INVENTION: Proteins, Genes and Their Use for
; TITLE OF INVENTION: Diagnosis and Treatment of Bipolar Affective Disorder (BAD)
; TITLE OF INVENTION: and Unipolar Depression
; FILE REFERENCE: 2543-1-001 N2
; CURRENT APPLICATION NUMBER: US/09/791,389
; CURRENT FILING DATE: 2001-02-23
; PRIOR APPLICATION NUMBER: GB 0004412.3
; PRIOR FILING DATE: 2000-02-24
; PRIOR APPLICATION NUMBER: GB 0030050.9
; PRIOR FILING DATE: 2000-12-08
; PRIOR APPLICATION NUMBER: US 60/254,830
; PRIOR FILING DATE: 2000-12-12
; NUMBER OF SEQ ID NOS: 308
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 184
; LENGTH: 9
; TYPE: PRT
; ORGANISM: homo sapien
US-09-791-389-184

Query Match 72.2%; Score 26; DB 10; Length 9;

Best Local Similarity 60.0%; Pred. No. 1e+06; Mismatches 2; Indels 0; Gaps 0;
Matches 3; Conservative 2; Indels 0; Gaps 0;

Qy 2 HXRWK 6
Db 5 HGQWK 9
|:|:|

RESULT 21
US-09-932-165-54
; Sequence 54, Application US/09932165
; Publication No. US20030134784A1
; GENERAL INFORMATION:
; APPLICANT: RAITANO, ARTHUR
; APPLICANT: CHALLITA-EID, PIA M.
; APPLICANT: FARIS, MARY
; APPLICANT: SAFFRAN, DOUGLAS
; APPLICANT: AFAR, DANIEL
; APPLICANT: LEVIN, ELANA
; APPLICANT: HUBERT, RENE
; APPLICANT: GE, WANGMAO
; APPLICANT: JAKOBOVITS, AYA
; TITLE OF INVENTION: NUCLEIC ACIDS AND CORRESPONDING PROTEINS ENTITLED
; TITLE OF INVENTION: 83P2H3 AND CatF2E11 USEFUL IN TREATMENT AND
; TITLE OF INVENTION: DETECTION OF CANCER
; FILE REFERENCE: 51158-20014.00
; CURRENT APPLICATION NUMBER: US/09/932,165
; CURRENT FILING DATE: 2001-08-17
; PRIOR APPLICATION NUMBER: 60/226,329
; PRIOR FILING DATE: 2000-08-17
; NUMBER OF SEQ ID NOS: 1508
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 54
; LENGTH: 9
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Peptide motif
US-09-932-165-54

Query Match 72.2%; Score 26; DB 10; Length 9;
Best Local Similarity 50.0%; Pred. No. 1e+06; Mismatches 3; Indels 0; Gaps 0;
Matches 3; Conservative 3; Indels 0; Gaps 0;

Qy 1 DHXRWK 6
Db 3 DNKEWR 8
|:|:|

RESULT 22
US-09-932-165-157
; Sequence 157, Application US/09932165
; Publication No. US20030134784A1
; GENERAL INFORMATION:
; APPLICANT: RAITANO, ARTHUR
; APPLICANT: CHALLITA-EID, PIA M.
; APPLICANT: FARIS, MARY
; APPLICANT: SAFFRAN, DOUGLAS
; APPLICANT: AFAR, DANIEL
; APPLICANT: LEVIN, ELANA
; APPLICANT: HUBERT, RENE
; APPLICANT: GE, WANGMAO
; APPLICANT: JAKOBOVITS, AYA
; TITLE OF INVENTION: NUCLEIC ACIDS AND CORRESPONDING PROTEINS ENTITLED
; TITLE OF INVENTION: 83P2H3 AND CatF2E11 USEFUL IN TREATMENT AND
; TITLE OF INVENTION: DETECTION OF CANCER
; FILE REFERENCE: 51158-20014.00
; CURRENT APPLICATION NUMBER: US/09/932,165
; CURRENT FILING DATE: 2001-08-17
; PRIOR APPLICATION NUMBER: 60/226,329
; PRIOR FILING DATE: 2000-08-17
; NUMBER OF SEQ ID NOS: 1508
; SOFTWARE: PatentIn Ver. 2.1

; SEQ ID NO 157
; LENGTH: 10
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Peptide motif
US-09-932-165-157

Query Match 72.2%; Score 26; DB 10; Length 10;
Best Local Similarity 50.0%; Pred. No. 6.9e+02; Mismatches 3; Conservative 3; Indels 0; Gaps 0;
Matches 3; Conservative 3; Indels 0; Gaps 0;

Qy 1 DHXRWK 6
Db 3 DNKEWR 8
|:|:|

RESULT 23
US-09-929-818-206
; Sequence 206, Application US/09929818
; Patent No. US20020099003A1
; GENERAL INFORMATION:
; APPLICANT: WILSON, LELAND F.
; APPLICANT: PLACE, VIRGIL A.
; TITLE OF INVENTION: TREATMENT OF FEMALE SEXUAL DYSFUNCTION WITH VASOACTIVE
; TITLE OF INVENTION: AGENTS, PARTICULARLY VASOACTIVE INTESTINAL POLYPEPTIDE
; TITLE OF INVENTION: AND AGONISTS THEREOF
; FILE REFERENCE: 9050-0013.24
; CURRENT APPLICATION NUMBER: US/09/929,818
; CURRENT FILING DATE: 2001-08-13
; PRIOR APPLICATION NUMBER: 09/498,522
; PRIOR FILING DATE: 2000-02-04
; PRIOR APPLICATION NUMBER: 09/181,316
; PRIOR FILING DATE: 1998-10-27
; PRIOR APPLICATION NUMBER: 08/959,064
; PRIOR FILING DATE: 1997-10-28
; PRIOR APPLICATION NUMBER: 08/959,057
; PRIOR FILING DATE: 1997-10-28
; NUMBER OF SEQ ID NOS: 207
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 206
; LENGTH: 4
; TYPE: PRT
; ORGANISM: Unknown Organism
; FEATURE:
; OTHER INFORMATION: Description of Unknown Organism: Melanocortin
; OTHER INFORMATION: peptide
US-09-929-818-206

Query Match 69.4%; Score 25; DB 9; Length 4;
Best Local Similarity 75.0%; Pred. No. 1e+06; Mismatches 1; Indels 0; Gaps 0;
Matches 3; Conservative 1; Indels 0; Gaps 0;

Qy 2 HXRWK 5
Db 1 HFRW 4
|:|:|

RESULT 24
US-10-640-755-1
; Sequence 1, Application US/10640755
; Publication No. US20040038897A1
; GENERAL INFORMATION:
; APPLICANT: Palatin Technologies, Inc.
; APPLICANT: Sharma, Shubh
; APPLICANT: Shi, Yi-Qun
; APPLICANT: Cai, Hui-Zhi
; APPLICANT: Yang, Wei
; APPLICANT: Shadiack, Annette
; TITLE OF INVENTION: Melanocortin Metallopeptides for Treatment of Sexual Dysfunction
; FILE REFERENCE: 70025-US-04431
; CURRENT APPLICATION NUMBER: US/10/640,755
; CURRENT FILING DATE: 2003-08-13

; PRIOR APPLICATION NUMBER: PCT/US02/04431
; PRIOR FILING DATE: 2002-02-13
; PRIOR APPLICATION NUMBER: US 60/269,591
; PRIOR FILING DATE: 2001-02-13
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 1
; LENGTH: 4
; TYPE: PRT
; ORGANISM: Artificial
; FEATURE:
; OTHER INFORMATION: Core sequence of alpha-MSH
US-10-640-755-1

Query Match 69.4%; Score 25; DB 12; Length 4;
Best Local Similarity 75.0%; Pred. No. 1e+06; Indels 0; Gaps 0;
Matches 3; Conservative 1; Mismatches 0;

Qy 2 HXRW 5
|:|
Db 1 HFRW 4

RESULT 25
US-09-883-069-4
; Sequence 4, Application US/03883069
; Publication No. US20020012948A1
; GENERAL INFORMATION:
; APPLICANT: Palatin Technologies, Inc.
; APPLICANT: Shubb, Sharma
; APPLICANT: Yigun, Shi
; TITLE OF INVENTION: Metallopeptide Combinatorial Libraries and Applications
; FILE REFERENCE: 70025
; CURRENT APPLICATION NUMBER: US/09/883,069
; CURRENT FILING DATE: 2001-06-14
; PRIOR APPLICATION NUMBER: US 60/112,235
; PRIOR FILING DATE: 1998-12-14
; PRIOR APPLICATION NUMBER: PCT/US99/29743
; PRIOR FILING DATE: 1999-12-14
; NUMBER OF SEQ ID NOS: 13
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 4
; LENGTH: 4
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: tetrapeptide message sequence of alpha-MSH
US-09-883-069-4

Query Match 69.4%; Score 25; DB 12; Length 4;
Best Local Similarity 75.0%; Pred. No. 1e+06; Indels 0; Gaps 0;
Matches 3; Conservative 1; Mismatches 0;

Qy 2 HXRW 5
|:|
Db 1 HFRW 4

RESULT 26
US-10-139-624-1
; Sequence 1, Application US/10139624
; Publication No. US20030212002A1
; GENERAL INFORMATION:
; APPLICANT: Haskell-Luevano, Carrie
; APPLICANT: Holder, Jerry
; TITLE OF INVENTION: Peptides and Methods for the Control of Obesity
; FILE REFERENCE: UF-T10700
; CURRENT APPLICATION NUMBER: US/10/139,624
; CURRENT FILING DATE: 2002-05-07
; NUMBER OF SEQ ID NOS: 2
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 1
; LENGTH: 4

; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Peptide fragment
US-10-139-624-1

Query Match 69.4%; Score 25; DB 12; Length 4;
Best Local Similarity 75.0%; Pred. No. 1e+06; Indels 0; Gaps 0;
Matches 3; Conservative 1; Mismatches 0;

Qy 2 HXRW 5
|:|
Db 1 HFRW 4

RESULT 27
US-10-040-547-1
; Sequence 1, Application US/10040547
; Publication No. US20020107182A1
; GENERAL INFORMATION:
; APPLICANT: Palatin Technologies, Inc.
; APPLICANT: Blood, Christine
; APPLICANT: Shadlack, Annette
; APPLICANT: Bernstein, Joanna K.
; APPLICANT: Herbert, Guy W.
; TITLE OF INVENTION: Compositions and Methods for Treatment of Sexual
; TITLE OF INVENTION: Dysfunction
; FILE REFERENCE: 70025-04-CIP
; CURRENT APPLICATION NUMBER: US/10/040,547
; CURRENT FILING DATE: 2002-01-04
; PRIOR APPLICATION NUMBER: 60/142,346
; PRIOR FILING DATE: 1999-06-29
; PRIOR APPLICATION NUMBER: 60/194,987
; PRIOR FILING DATE: 2000-04-05
; PRIOR APPLICATION NUMBER: PCT/US00/18217
; PRIOR FILING DATE: 2000-06-29
; PRIOR APPLICATION NUMBER: 09/606,501
; PRIOR FILING DATE: 2000-06-28
; NUMBER OF SEQ ID NOS: 1
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 1
; LENGTH: 4
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial
; OTHER INFORMATION: Sequence: alpha-melanocyte-stimulation hormone
; OTHER INFORMATION: tetrapeptide core sequence
US-10-040-547-1

Query Match 69.4%; Score 25; DB 13; Length 4;
Best Local Similarity 75.0%; Pred. No. 1e+06; Indels 0; Gaps 0;
Matches 3; Conservative 1; Mismatches 0;

Qy 2 HXRW 5
|:|
Db 1 HFRW 4

RESULT 28
US-10-463-016-1
; Sequence 1, Application US/10463016
; Publication No. US20040086946A1
; GENERAL INFORMATION:
; APPLICANT: Andrew J. Murphy
; APPLICANT: Y. Gopi Shanker
; APPLICANT: George D. Yancopoulos
; TITLE OF INVENTION: Methods of Isolation of Active Compounds
; TITLE OF INVENTION: and Activated Targets
; FILE REFERENCE: REG 940A
; CURRENT APPLICATION NUMBER: US/10/463,016
; CURRENT FILING DATE: 2003-06-17
; PRIOR APPLICATION NUMBER: 60/423,767

```
; PRIOR FILING DATE: 2002-11-05
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 1
; LENGTH: 4
; TYPE: PRT
; ORGANISM: homo sapiens
US-10-463-016-1

Query Match      69.4%; Score 25; DB 16; Length 4;
Best Local Similarity 75.0%; Pred. No. 1e+06;
Matches 3; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY      2 HXRW 5
       |:|
Db      1 HFRW 4

RESULT 29
US-09-990-762-12
; Sequence 12, Application US/09990762
; Patent No. US20020119498A1
; GENERAL INFORMATION:
; APPLICANT: JOUNG, J. KEITH
; APPLICANT: MILLER, JEFFREY
; APPLICANT: PABO, CARL O.
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR INTERACTION TRAP ASSAYS
; FILE REFERENCE: MTW-030.02 (20021-3002)
; CURRENT APPLICATION NUMBER: US/09/990,762
; CURRENT FILING DATE: 2001-11-14
; PRIOR APPLICATION NUMBER: 09/858,852
; PRIOR FILING DATE: 2001-05-16
; PRIOR APPLICATION NUMBER: 60/204,509
; PRIOR FILING DATE: 2000-05-16
; NUMBER OF SEQ ID NOS: 97
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 12
; LENGTH: 6
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Zinc finger
; OTHER INFORMATION: recognition sequence
US-09-990-762-12

Query Match      69.4%; Score 25; DB 9; Length 6;
Best Local Similarity 50.0%; Pred. No. 1e+06;
Matches 3; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY      1 DHXRWK 6
       |:|
Db      1 NHGSWK 6

RESULT 30
US-09-858-852A-12
; Sequence 12, Application US/09858852A
; Patent No. US20030044787A1
; GENERAL INFORMATION:
; APPLICANT: JOUNG, J. KEITH
; APPLICANT: MILLER, JEFFREY
; APPLICANT: PABO, CARL O.
; TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR INTERACTION TRAP ASSAYS
; FILE REFERENCE: MTW-030.01 (20021-3001)
; CURRENT APPLICATION NUMBER: US/09/858,852A
; CURRENT FILING DATE: 2001-05-16
; PRIOR APPLICATION NUMBER: 60/204,509
; PRIOR FILING DATE: 2000-05-16
; NUMBER OF SEQ ID NOS: 91
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 12
; LENGTH: 6
; TYPE: PRT

; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Zinc finger
US-09-858-852A-12

Query Match      69.4%; Score 25; DB 10; Length 6;
Best Local Similarity 50.0%; Pred. No. 1e+06;
Matches 3; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY      1 DHXRWK 6
       |:|
Db      1 NHGSWK 6

RESULT 31
US-10-297-976-1
; Sequence 1, Application US/10297976
; Publication No. US20030219825A1
; GENERAL INFORMATION:
; APPLICANT: GLAXO GROUP LIMITED
; TITLE OF INVENTION: HIGH THROUGHPUT METHOD FOR SCREENING CANDIDATE COMPOUNDS
; FILE REFERENCE: FOR BIOLOGICAL ACTIVITY
; CURRENT APPLICATION NUMBER: US/10/297,976
; CURRENT FILING DATE: 2002-12-12
; NUMBER OF SEQ ID NOS: 3
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 1
; LENGTH: 6
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: MCR1 agonist
; OTHER INFORMATION: peptide
US-10-297-976-1

Query Match      69.4%; Score 25; DB 15; Length 6;
Best Local Similarity 75.0%; Pred. No. 1e+06;
Matches 3; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY      2 HXRW 5
       |:|
Db      3 HFRW 6

RESULT 32
US-09-953-349-3
; Sequence 3, Application US/09953349
; Patent No. US20020099014A1
; GENERAL INFORMATION:
; APPLICANT: Brennan, Miles
; APPLICANT: Hochgeschwender, Ute
; TITLE OF INVENTION: Method for Treatment of Insulin Resistance in Obesity and Diabetes
; FILE REFERENCE: 3718-7
; CURRENT APPLICATION NUMBER: US/09/953,349
; CURRENT FILING DATE: 2001-09-13
; PRIOR APPLICATION NUMBER: 60/232,292
; PRIOR FILING DATE: 2000-09-13
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 3
; LENGTH: 7
; TYPE: PRT
; ORGANISM: Artificial sequence
; FEATURE:
; NAME/KEY: MOD RES
; LOCATION: (1)..(1)
; OTHER INFORMATION: Xaa = Nle
; NAME/KEY: VARIANT
; LOCATION: (2)..(2)
; OTHER INFORMATION: Xaa = Glu or Asp
; NAME/KEY: VARIANT
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; LOCATION: (4)..(4)
; OTHER INFORMATION: Xaa = Phe or D-Phe
; NAME/KEY: VARIANT
; LOCATION: (7)..(7)
; OTHER INFORMATION: Xaa = dibasic amino acid; Lys; Orn; Dbu; or Dpr
; NAME/KEY: PEPTIDE
; LOCATION: (1)..(7)
; OTHER INFORMATION: analog
; US-09-953-349-3

Query Match          69.4%; Score 25; DB 9; Length 7;
Best Local Similarity 100.0%; Pred. No. 1e+06;
Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 HXRW 5
Db 3 HXRW 6

RESULT 33
US-09-575-847-16
; Sequence 16, Application US/09575847
; Publication No. US20030013149A1
; GENERAL INFORMATION:
; APPLICANT: THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
; APPLICANT: WACHTER, Rebekka
; TITLE OF INVENTION: REMINGTON, James
; FILE REFERENCE: REGEN1250-5
; CURRENT APPLICATION NUMBER: US/09/575,847
; CURRENT FILING DATE: 2000-05-19
; PRIOR APPLICATION NUMBER: US 08/974,737
; PRIOR FILING DATE: 1997-11-19
; PRIOR APPLICATION NUMBER: US 08/911,825
; PRIOR FILING DATE: 1997-08-15
; PRIOR APPLICATION NUMBER: US 08/706,408
; PRIOR FILING DATE: 1996-08-30
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 16
; LENGTH: 7
; TYPE: PRT
; ORGANISM: Artificial sequence
; FEATURE:
; OTHER INFORMATION: Mutant Green Fluorescent Protein
; US-09-575-847-16

Query Match          69.4%; Score 25; DB 10; Length 7;
Best Local Similarity 75.0%; Pred. No. 1e+06;
Matches 3; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 2 HXRW 5
Db 2 HQRW 5

RESULT 34
US-09-458-579-3
; Sequence 3, Application US/09458579
; Publication No. US20030144174A1
; GENERAL INFORMATION:
; APPLICANT: Brennan, Miles B.
; APPLICANT: Hochgeschwender, Ute
; TITLE OF INVENTION: METHODS FOR IDENTIFYING COMPOUNDS USEFUL FOR THE
; FILE REFERENCE: 3718-6
; TITLE OF INVENTION: REGULATION OF BODY WEIGHT AND ASSOCIATED CONDITIONS
; CURRENT APPLICATION NUMBER: US/09/458,579
; CURRENT FILING DATE: 1999-12-09
; EARLIER APPLICATION NUMBER: 60/111,581
; EARLIER FILING DATE: 1998-12-09
; EARLIER APPLICATION NUMBER: 60/146,306
; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,305

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; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,304
; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,303
; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,302
; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,301
; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,300
; EARLIER FILING DATE: 1999-07-29
; EARLIER APPLICATION NUMBER: 60/146,299
; EARLIER FILING DATE: 1999-07-29
; NUMBER OF SEQ ID NOS: 6
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 3
; LENGTH: 7
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; NAME/KEY: MOD_RES
; LOCATION: (1)
; OTHER INFORMATION: Xaa = Nle
; FEATURE:
; NAME/KEY: VARIANT
; LOCATION: (2)
; OTHER INFORMATION: Xaa = Glu or Asp
; FEATURE:
; NAME/KEY: VARIANT
; LOCATION: (4)
; OTHER INFORMATION: Xaa = Phe or D-Phe
; FEATURE:
; NAME/KEY: VARIANT
; LOCATION: (7)
; OTHER INFORMATION: Xaa = dibasic amino acid; Lys; Orn; Dbu; or Dpr
; NAME/KEY: PEPTIDE
; LOCATION: (1)..(7)
; OTHER INFORMATION: analog
; US-09-458-579-3

Query Match          69.4%; Score 25; DB 10; Length 7;
Best Local Similarity 100.0%; Pred. No. 1e+06;
Matches 4; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 HXRW 5
Db 3 HXRW 6

RESULT 35
US-10-258-146A-45
; Sequence 45, Application US/10258146A
; Publication No. US20040052812A1
; GENERAL INFORMATION:
; APPLICANT: Mee Hoe
; APPLICANT: Frank Landsberger
; TITLE OF INVENTION: HEAT SHOCK PROTEIN-BASED ANTIVIRAL
; TITLE OF INVENTION: VACCINES
; FILE REFERENCE: 11390/46301
; CURRENT APPLICATION NUMBER: US/10/258,146A
; CURRENT FILING DATE: 2003-09-05
; PRIOR APPLICATION NUMBER: PCT/US01/12568
; PRIOR FILING DATE: 2001-04-17
; PRIOR APPLICATION NUMBER: 60/197,462
; PRIOR FILING DATE: 2000-04-17
; NUMBER OF SEQ ID NOS: 180
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 45
; LENGTH: 7
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:

```


; OTHER INFORMATION: obtained from a phage synthetic peptide library
US-10-258-146A-45

Query Match 69.4%; Score 25; DB 12; Length 7;
Best Local Similarity 75.0%; Pred. No. 1e+06; 0; Indels 0; Gaps 0;
Matches 3; Conservative 1; Mismatches 0;

QY 2 HXRW 5
|:|
Db 4 HLRW 7

RESULT 36
US-10-328-953-190
; Sequence 190, Application US/10328953
; Publication No. US20040071656A1
; GENERAL INFORMATION:
; APPLICANT: Wieland, Felix
; TITLE OF INVENTION: Modulation of Heat-Shock-Protein-Based Immunotherapies
; FILE REFERENCE: 11390/46101
; CURRENT APPLICATION NUMBER: US/10/328,953
; CURRENT FILING DATE: 2002-12-23
; PRIOR APPLICATION NUMBER: US 60/342,570
; PRIOR FILING DATE: 2001-12-26
; PRIOR APPLICATION NUMBER: US 60/343,884
; PRIOR FILING DATE: 2001-12-28
; PRIOR APPLICATION NUMBER: US 60/372,620
; PRIOR FILING DATE: 2002-04-12
; PRIOR APPLICATION NUMBER: US 60/399,342
; PRIOR FILING DATE: 2002-07-29
; PRIOR APPLICATION NUMBER: US 60/414,834
; PRIOR FILING DATE: 2002-09-28
; NUMBER OF SEQ ID NOS: 331
; SOFTWARE: WordPerfect 8.0 for Windows
; SEQ ID NO 190
; LENGTH: 7
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: peptide in ml3 coliphage
US-10-328-953-190

Query Match 69.4%; Score 25; DB 12; Length 7;
Best Local Similarity 75.0%; Pred. No. 1e+06; 0; Indels 0; Gaps 0;
Matches 3; Conservative 1; Mismatches 0;

QY 2 HXRW 5
|:|
Db 4 HLRW 7

RESULT 37
US-10-052-578-187
; Sequence 187, Application US/10052578
; Publication No. US20030134787A1
; GENERAL INFORMATION:
; APPLICANT: Sloan-Kettering Institute for Cancer Research
; APPLICANT: Rothman, James E.
; APPLICANT: Mayhew, Mark
; APPLICANT: Hoe, Mee H.
; APPLICANT: Houghton, Alan
; APPLICANT: Hartl, Ulrich
; APPLICANT: Querfelli, Ouathek
; APPLICANT: Moroi, Yoichi
; TITLE OF INVENTION: CONJUGATE HEAT SHOCK PROTEIN-BINDING PEPTIDES
; FILE REFERENCE: 11746/46003
; CURRENT APPLICATION NUMBER: US/10/052,578
; CURRENT FILING DATE: 2002-01-17
; PRIOR APPLICATION NUMBER: 08/961,707
; PRIOR FILING DATE: 1997-10-31
; NUMBER OF SEQ ID NOS: 321
; SOFTWARE: WordPerfect 8.0 for Windows

; SEQ ID NO 187
; LENGTH: 7
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: peptide in ml3 coliphage
US-10-052-578-187

Query Match 69.4%; Score 25; DB 14; Length 7;
Best Local Similarity 75.0%; Pred. No. 1e+06; 0; Indels 0; Gaps 0;
Matches 3; Conservative 1; Mismatches 0;

QY 2 HXRW 5
|:|
Db 4 HLRW 7

RESULT 38
US-10-080-263C-32
; Sequence 32, Application US/10080263C
; Publication No. US20030143670A1
; GENERAL INFORMATION:
; APPLICANT: Bonini, James A.
; APPLICANT: Huang, Ling-Yan
; APPLICANT: Wilson, Amy
; TITLE OF INVENTION: DNA ENCODING SNORF44 RECEPTOR
; FILE REFERENCE: 1795/59370-A/JPW/ADM/ANX
; CURRENT APPLICATION NUMBER: US/10/080,263C
; CURRENT FILING DATE: 2002-02-20
; NUMBER OF SEQ ID NOS: 33
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 32
; LENGTH: 7
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-080-263C-32

Query Match 69.4%; Score 25; DB 14; Length 7;
Best Local Similarity 75.0%; Pred. No. 1e+06; 0; Indels 0; Gaps 0;
Matches 3; Conservative 1; Mismatches 0;

QY 2 HXRW 5
|:|
Db 4 HLRW 7

RESULT 39
US-10-053-520-187
; Sequence 187, Application US/10053520
; Publication No. US20030166530A1
; GENERAL INFORMATION:
; APPLICANT: Sloan-Kettering Institute for Cancer Research
; APPLICANT: Rothman, James E.
; APPLICANT: Mayhew, Mark
; APPLICANT: Hoe, Mee H.
; APPLICANT: Houghton, Alan
; APPLICANT: Hartl, Ulrich
; APPLICANT: Querfelli, Ouathek
; APPLICANT: Moroi, Yoichi
; TITLE OF INVENTION: CONJUGATE HEAT SHOCK PROTEIN-BINDING PEPTIDES
; FILE REFERENCE: 11746/46004
; CURRENT APPLICATION NUMBER: US/10/053,520
; CURRENT FILING DATE: 2002-10-01
; PRIOR APPLICATION NUMBER: 08/961,707
; PRIOR FILING DATE: 1997-10-31
; NUMBER OF SEQ ID NOS: 321
; SOFTWARE: WordPerfect 8.0 for Windows
; SEQ ID NO 187
; LENGTH: 7
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: peptide in ml3 coliphage

```
US-10-053-520-187
Query Match      69.4%; Score 25; DB 14; Length 7;
Best Local Similarity 75.0%; Pred. NO. 1e+06;
Matches 3; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 2 HXRW 5
   |:||
Db 4 HLRW 7

RESULT 40
US-10-053-498B-187
; Sequence 187, Application US/10053498B
; Publication NO. US20030194409A1
; GENERAL INFORMATION:
; APPLICANT: Sloan-Kettering Institute for Cancer Research
; APPLICANT: Rothman, James E.
; APPLICANT: Mayhew, Mark
; APPLICANT: Hoe, Mee H.
; APPLICANT: Houghton, Alan
; APPLICANT: Hartl, Ulrich
; APPLICANT: Querfelli, Quathek
; APPLICANT: Moroi, Yoichi
; TITLE OF INVENTION: CONJUGATE HEAT SHOCK PROTEIN-BINDING PEPTIDES
; FILE REFERENCE: 11746/46002
; CURRENT APPLICATION NUMBER: US/10/053,498B
; CURRENT FILING DATE: 2002-01-17
; PRIOR APPLICATION NUMBER: 08/961,707
; PRIOR FILING DATE: 1997-10-31
; NUMBER OF SEQ ID NOS: 321
; SOFTWARE: WordPerfect 8.0 for Windows
; SEQ ID NO 187
; LENGTH: 7
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: peptide in ml3 coliphage
US-10-053-498B-187

Query Match      69.4%; Score 25; DB 14; Length 7;
Best Local Similarity 75.0%; Pred. NO. 1e+06;
Matches 3; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 2 HXRW 5
   |:||
Db 4 HLRW 7

RESULT 41
US-10-053-099-16
; Sequence 16, Application US/10620099
; Publication NO. US20040014128A1
; GENERAL INFORMATION:
; APPLICANT: THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
; APPLICANT: WACHTER, Rebekka
; APPLICANT: REMINGTON, James
; TITLE OF INVENTION: LONG WAVELENGTH ENGINEERED FLUORESCENT PROTEINS
; FILE REFERENCE: REGEN1250-5
; CURRENT APPLICATION NUMBER: US/10/620,099
; CURRENT FILING DATE: 2003-07-14
; PRIOR APPLICATION NUMBER: US/09/575,847
; PRIOR FILING DATE: 2000-05-19
; PRIOR APPLICATION NUMBER: US 08/974,737
; PRIOR FILING DATE: 1997-11-19
; PRIOR APPLICATION NUMBER: US 08/911,825
; PRIOR FILING DATE: 1997-08-15
; PRIOR APPLICATION NUMBER: US 08/706,408
; PRIOR FILING DATE: 1996-08-30
; NUMBER OF SEQ ID NOS: 20
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 16
; LENGTH: 7

US-10-053-520-187
; TYPE: PRT
; ORGANISM: Artificial sequence
; FEATURE:
; OTHER INFORMATION: Mutant Green Fluorescent Protein
US-10-620-099-16

Query Match      69.4%; Score 25; DB 15; Length 7;
Best Local Similarity 75.0%; Pred. NO. 1e+06;
Matches 3; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 2 HXRW 5
   |:||
Db 2 HQRW 5

RESULT 42
US-09-828-272A-3
; Sequence 3, Application US/09828272A
; Publication NO. US20020183255A1
; GENERAL INFORMATION:
; APPLICANT: LIPTON, James M
; APPLICANT: CATANIA, Anna P
; TITLE OF INVENTION: USE OF KPV TRIPEPTIDE FOR DERMATOLOGICAL DISORDERS
; FILE REFERENCE: 259/058
; CURRENT APPLICATION NUMBER: US/09/828,272A
; CURRENT FILING DATE: 2001-04-06
; NUMBER OF SEQ ID NOS: 7
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 3
; LENGTH: 8
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Designed polypeptide with anti-inflammatory, anti-bacterial, anti
; OTHER INFORMATION: -fungal and antipyretic properties.
US-09-828-272A-3

Query Match      69.4%; Score 25; DB 9; Length 8;
Best Local Similarity 75.0%; Pred. NO. 1e+06;
Matches 3; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 2 HXRW 5
   |:||
Db 1 HPRW 4

RESULT 43
US-09-774-282-3
; Sequence 3, Application US/09774282
; Publication NO. US20020146374A1
; GENERAL INFORMATION:
; APPLICANT: LIPTON, JAMES M.
; TITLE OF INVENTION: A COMPOUND AND METHOD OF TREATMENT FOR FUNGAL PATHOLOGIES
; TITLE OF INVENTION: OF THE ORAL CAVITY
; FILE REFERENCE: 54275.8010.US00
; CURRENT APPLICATION NUMBER: US/09/774,282
; CURRENT FILING DATE: 2001-01-29
; NUMBER OF SEQ ID NOS: 10
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 3
; LENGTH: 8
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic
; OTHER INFORMATION: peptide
; OTHER INFORMATION: n-term may or may not be acetylated
; OTHER INFORMATION: c-term may or may not be amidated
US-09-774-282-3

Query Match      69.4%; Score 25; DB 12; Length 8;
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Job time : 42 secs

Best Local Similarity 75.0%; Pred. No. 1e+06; Mismatches 1; Indels 0; Gaps 0;
Matches 3; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 2 HXRW 5
Db 1 HFRW 4

RESULT 44
US-10-235-682-3
; Sequence 3, Application US/10235682
; Publication No. US20030108523A1
; GENERAL INFORMATION:
; APPLICANT: Lipton, James
; APPLICANT: Catania, Anna P.
; TITLE OF INVENTION: A CANCER TREATMENT SYSTEM
; FILE REFERENCE: 8022.US01
; CURRENT APPLICATION NUMBER: US/10/235,682
; CURRENT FILING DATE: 2002-09-05
; PRIOR APPLICATION NUMBER: US 60/317,514
; PRIOR FILING DATE: 2002-09-05
; NUMBER OF SEQ ID NOS: 9
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 3
; LENGTH: 8
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Designed polypeptide with anti-inflammatory, anti-microbial, anti-fungal, anti-viral, and anti-cancer properties.

US-10-235-682-3

Query Match 69.4%; Score 25; DB 14; Length 8;
Best Local Similarity 75.0%; Pred. No. 1e+06; Mismatches 1; Indels 0; Gaps 0;
Matches 3; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 2 HXRW 5
Db 1 HFRW 4

RESULT 45
US-10-015-055-2
; Sequence 2, Application US/10015055
; Publication No. US20030109453A1
; GENERAL INFORMATION:
; APPLICANT: CATANIA, Anna P
; APPLICANT: LIPTON, James M
; TITLE OF INVENTION: A COMPOUND AND METHOD FOR THE TREATMENT OF SINUSITIS
; FILE REFERENCE: 259/061
; CURRENT APPLICATION NUMBER: US/10/015,055
; CURRENT FILING DATE: 2001-12-10
; NUMBER OF SEQ ID NOS: 3
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 2
; LENGTH: 8
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Designed polypeptide with anti-inflammatory, anti-bacterial, anti-fungal and antipyretic properties.

US-10-015-055-2

Query Match 69.4%; Score 25; DB 14; Length 8;
Best Local Similarity 75.0%; Pred. No. 1e+06; Mismatches 1; Indels 0; Gaps 0;
Matches 3; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 2 HXRW 5
Db 1 HFRW 4

Search completed: May 18, 2004, 16:02:20

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: May 18, 2004, 15:53:06 ; Search time 20 Seconds
(without alignments)
28.957 Million cell updates/sec

Title: CLAIM11
Perfect score: 36
Sequence: 1 DHXRWK 6
Scoring table: BLOSUM62DX
Gapop 10.0 , Gapext 0.5

Searched: 283366 seqs, 96191526 residues
Total number of hits satisfying chosen parameters: 1101

Minimum DB seq length: 0
Maximum DB seq length: 10

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR 78:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match %	Length	ID	Description
1	22	61.1	8	A31570	angiotensin-conver
2	20	55.6	7	A28709	phosphonoacetaldeh
3	19	52.8	9	D57444	neuropeptide Grb-A
4	18	50.0	8	PQ0012	cholecystokinin -
5	18	50.0	8	A43001	cholecystokinin -
6	18	50.0	10	A61337	caerulein - frog (
7	18	50.0	10	A13687	caerulein-like pep
8	18	50.0	10	S39625	beta-galactosidase
9	17	47.2	5	A60803	neuropeptide - sea
10	17	47.2	8	T13818	cytochrome oxidase
11	17	47.2	10	RHLMGS	gonadoliberin - se
12	17	47.2	10	S66248	processing enzyme,
13	17	47.2	10	S23370	T-cell receptor al
14	17	47.2	10	F49033	T-cell receptor ga
15	17	47.2	10	T17054	cytochrome-c oxida
16	17	47.2	10	T17075	cytochrome-c oxida
17	17	47.2	10	T13976	cytochrome-c oxida
18	17	47.2	10	T17057	cytochrome-c oxida
19	17	47.2	10	T12303	cytochrome-c oxida
20	17	47.2	10	T14019	cytochrome-c oxida
21	17	47.2	10	T17060	cytochrome-c oxida
22	17	47.2	10	T17063	cytochrome-c oxida
23	17	47.2	10	T12325	cytochrome-c oxida
24	17	47.2	10	T14043	cytochrome-c oxida
25	17	47.2	10	T14054	cytochrome-c oxida
26	17	47.2	10	T17066	cytochrome-c oxida
27	17	47.2	10	T17069	cytochrome-c oxida
28	17	47.2	10	T12308	cytochrome-c oxida
29	17	47.2	10	T17072	cytochrome-c oxida

30	17	47.2	10	2	T12312	cytochrome-c oxida
31	17	47.2	10	2	T12329	cytochrome-c oxida
32	17	47.2	10	2	T12316	cytochrome-c oxida
33	17	47.2	10	2	T14212	cytochrome-c oxida
34	17	47.2	10	2	T12321	cytochrome-c oxida
35	17	47.2	10	2	T14215	cytochrome-c oxida
36	17	47.2	10	2	T14223	cytochrome-c oxida
37	17	47.2	10	2	T14219	cytochrome-c oxida
38	16	44.4	6	2	PD0028	pev-kinin 2 - pena
39	16	44.4	6	4	I79564	hypothetical TCL3
40	16	44.4	7	2	S33244	neuromodulatory pe
41	16	44.4	7	2	S33246	neuromodulatory pe
42	16	44.4	8	2	US0318	leucokinin VIII -
43	16	44.4	10	2	A49187	gonadotropin-relea
44	16	44.4	10	2	PT0245	lg heavy chain CRD
45	15	41.7	6	2	S71349	beta-crystallin B2

ALIGNMENTS

RESULT 1

A31570
angiotensin-converting enzyme inhibitor - yellowfin tuna
C:Species: Thunnus albacares (yellowfin tuna)
C>Date: 31-Mar-1990 #sequence_revision 31-Mar-1990 #text_change 18-Aug-2000
C:Accession: A31570
R:Kohama, Y.; Matsumoto, S.; Oka, H.; Teramoto, T.; Okabe, M.; Mimura, T.
Biochem. Biophys. Res. Commun. 155, 332-337, 1988
A:Title: Isolation of angiotensin-converting enzyme inhibitor from tuna muscle.
A:Reference number: A31570; MUID:88326322; PMID:3415688
A:Accession: A31570
A:Molecule type: protein
A:Residues: 1-8 <KOH>
A>Note: the source is designated as Neothunnus macropterus
C:Superfamily: unassigned animal peptides
C:Keywords: angiotensin-converting enzyme inhibitor

Query Match 61.1%; Score 22; DB 2; Length 8;
Best Local Similarity 50.0%; Pred. No. 2.8e+05;
Matches 2; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 2 HXRW 5
|:|
Db 3 HKW 6

RESULT 2

A28709
phosphonoacetaldehyde hydrolase - Bacillus cereus (fragment)
C:Species: Bacillus cereus
C>Date: 22-Aug-1988 #sequence_revision 22-Aug-1988 #text_change 30-Sep-1993
C:Accession: A28709
R:Olson, D.B.; Hepburn, T.W.; Moos, M.; Mariano, P.S.; Dunaway-Mariano, D.
Biochemistry 27, 2229-2234, 1988
A:Title: Investigation of the Bacillus cereus phosphonoacetaldehyde hydrolase. Evidence f

A:Reference number: A28709; MUID:88241058; PMID:3132206
A:Accession: A28709
A>Status: preliminary
A:Molecule type: protein
A:Residues: 1-7 <OLS>

Query Match 55.6%; Score 20; DB 2; Length 7;
Best Local Similarity 75.0%; Pred. No. 2.8e+05;
Matches 3; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DHXR 4
|:|
Db 4 DHVR 7

RESULT 3

D57444
neuropeptide Grb-AST B4 - two-spotted cricket
C;Species: Gryllus bimaculatus (two-spotted cricket)
C;Date: 26-Jan-1996 #sequence_revision 26-Jan-1996 #text_change 26-Jan-1996
C;Accession: D57444
R;Lorenz, M.W.; Kellner, R.; Hoffmann, K.H.
J. Biol. Chem. 270, 21103-21108, 1995
A;Title: A family of neuropeptides that inhibit juvenile hormone biosynthesis in the cricket
A;Reference number: A57444; MUID:95403341; PMID:7673141
A;Accession: D57444
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-9 <LOR>

Query Match 52.8%; Score 19; DB 2; Length 9;
Best Local Similarity 50.0%; Pred. No. 2.8e+05;
Matches 2; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 2 HXRW 5
|:|
Db 6 HGSW 9

RESULT 4
PQ0012
cholecystokinin - southeastern quoll
N;Alternate names: CCK
C;Species: Dasyurus viverrinus (southeastern quoll)
C;Date: 07-Sep-1990 #sequence_revision 07-Sep-1990 #text_change 13-Sep-1996
C;Accession: PQ0012
R;Fan, Z.W.; Eng, J.; Shaw, G.; Yalow, R.S.
Peptides 9, 429-431, 1988
A;Title: Cholecystokinin octapeptide purified from brains of Australian marsupials.
A;Reference number: PQ0012; MUID:88234141; PMID:3375140
A;Accession: PQ0012
A;Molecule type: protein
A;Residues: 1-8 <FAN>
C;Superfamily: gastrin
C;Keywords: amidated carboxyl end; hormone; neuropeptide; sulfoprotein
F;2/Binding site: sulfate (Tyr) (covalent) #status predicted
F;8/Modified site: amidated carboxyl end (Phe) #status predicted

Query Match 50.0%; Score 18; DB 2; Length 8;
Best Local Similarity 40.0%; Pred. No. 2.8e+05;
Matches 2; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 DHXRW 5
|:|
Db 1 DYMGW 5

RESULT 5
A43001
cholecystokinin - tammar wallaby
N;Alternate names: CCK
C;Species: Macropus eugenii (tammar wallaby)
C;Date: 30-Oct-1992 #sequence_revision 30-Oct-1992 #text_change 13-Sep-1996
C;Accession: A43001; PQ0012
R;Fan, Z.W.; Eng, J.; Shaw, G.; Yalow, R.S.
Peptides 9, 429-431, 1988
A;Title: Cholecystokinin octapeptide purified from brains of Australian marsupials.
A;Reference number: PQ0012; MUID:88234141; PMID:3375140
A;Accession: A43001
A;Molecule type: protein
A;Residues: 1-8 <FAN>
C;Superfamily: gastrin
C;Keywords: amidated carboxyl end; hormone; neuropeptide; sulfoprotein
F;2/Binding site: sulfate (Tyr) (covalent) #status predicted
F;8/Modified site: amidated carboxyl end (Phe) #status predicted

Query Match 50.0%; Score 18; DB 2; Length 8;
Best Local Similarity 40.0%; Pred. No. 2.8e+05;
Matches 2; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 DHXRW 5
|:|
Db 1 DYMGW 5

RESULT 6
A61337
caerulein - frog (Hyla caerulea)
C;Species: Hyla caerulea
C;Date: 05-Aug-1994 #sequence_revision 05-Aug-1994 #text_change 07-May-1999
C;Accession: A61337
R;Anastasi, A.; Erspamer, V.; Endean, R.
Arch. Biochem. Biophys. 125, 57-68, 1968
A;Title: Isolation and amino acid sequence of caerulein, the active decapeptide of the s
A;Reference number: A61337; MUID:68238534; PMID:5649531
A;Accession: A61337
A;Molecule type: protein
A;Residues: 1-10 <ANA>
C;Comment: The last five amino acids and the carboxyl terminal amide group of this neuro
C;Comment: This amphibian skin peptide can cause a sustained lowering of blood pressure
C;Superfamily: gastrin
C;Keywords: amidated carboxyl end; antihypertensive; neuropeptide; pyroglutamic acid; se
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;4/Binding site: sulfate (Tyr) (covalent) #status experimental
F;10/Modified site: amidated carboxyl end (Phe) #status experimental

Query Match 50.0%; Score 18; DB 2; Length 10;
Best Local Similarity 40.0%; Pred. No. 1.5e+03;
Matches 2; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 DHXRW 5
|:|
Db 3 DYTGW 7

RESULT 7
A13687
caerulein-like peptide - African tree frog (Kassina maculata)
C;Species: Kassina maculata
C;Date: 13-Mar-1997 #sequence_revision 13-Mar-1997 #text_change 02-Sep-2000
C;Accession: A13687
R;Montecucchi, P.; Falconieri Erspamer, G.; Visser, J.
Experientia 33, 1138-1139, 1977
A;Title: Occurrence of Asn(2),Leu(5)-caerulein in the skin of the African frog Hylambate
A;Reference number: A13687; MUID:77246547; PMID:891852
A;Accession: A13687
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-10 <MON>
C;Superfamily: gastrin
C;Keywords: amidated carboxyl end; neuropeptide; pyroglutamic acid; skin; sulfoprotein
F;1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
F;4/Binding site: sulfate (Tyr) (covalent) #status experimental
F;10/Modified site: amidated carboxyl end (Phe) #status experimental

Query Match 50.0%; Score 18; DB 2; Length 10;
Best Local Similarity 40.0%; Pred. No. 1.5e+03;
Matches 2; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 DHXRW 5
|:|
Db 3 DYLGW 7

RESULT 8
S59625
beta-galactosidase alpha chain - Escherichia coli (fragment)
C;Species: Escherichia coli
C;Date: 20-Jul-1996 #sequence_revision 13-Mar-1997 #text_change 07-May-1999
C;Accession: S59625
R;Calugaru, S.V.; Hall, B.G.; Sinnott, M.L.
Biochem. J. 312, 281-286, 1995

A:Title: Catalysis by the large subunit of the second beta-galactosidase of *Escherichia*
 A:Reference number: S59625; MUID:96077156; PMID:749325
 A:Accession: S59625
 A>Status: preliminary
 A:Molecule type: protein
 A:Residues: 1-10 <CAL>

Query Match 50.0%; Score 18; DB 2; Length 10;
 Best Local Similarity 75.0%; Pred. No. 1.5e+03;
 Matches 3; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRWK 6
 :||
 Db 2 XRWK 5

RESULT 9
 A60803
 neuropeptide - sea anemone (*Anthopleura elegantissima*)
 C:Species: *Anthopleura elegantissima*
 C:Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 07-May-1999
 C:Accession: A60803
 R:Graff, D.; Grimmelikhuijzen, C.J.P.
 Brain Res. 442, 354-358, 1988
 A:Title: Isolation of <Glu-Ser-Lu-Arg-Trp-NH-2, a novel neuropeptide from sea anemones.
 A:Reference number: A60803; MUID:88222764; PMID:2897223
 A:Accession: A60803
 A:Molecule type: protein
 A:Residues: 1-5 <GRA>

C:Keywords: amidated carboxyl end; neuropeptide; pyroglutamic acid
 F:1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
 F:5/Modified site: amidated carboxyl end (Trp) #status experimental

Query Match 47.2%; Score 17; DB 2; Length 5;
 Best Local Similarity 66.7%; Pred. No. 2.8e+05;
 Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
 :||
 Db 3 LRW 5

RESULT 10
 T13818
 cytochrome oxidase subunit I - Atlantic hagfish mitochondrion (fragment)
 C:Species: mitochondrion *Myxine glutinosa* (Atlantic hagfish)
 C:Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change 21-Jul-2000
 C:Accession: T13818
 R:Delarbre, C.; Barriel, V.; Tillier, S.; Janvier, P.; Gachelin, G.
 Mol. Biol. Evol. 14, 807-813, 1997
 A:Title: The main features of the craniate mitochondrial DNA between the ND1 and the COI
 A:Reference number: Z17775; MUID:97398704; PMID:9254918
 A:Accession: T13818
 A>Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: DNA
 A:Residues: 1-8
 A:Cross-references: EMBL:Y09527; NID:92340019; PIDN:CAA70718.1; PID:92340022
 C:Genetics:
 A:Genome: mitochondrion
 A:Note: COI
 C:Keywords: mitochondrion

Query Match 47.2%; Score 17; DB 2; Length 8;
 Best Local Similarity 66.7%; Pred. No. 2.8e+05;
 Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
 :||
 Db 4 SRW 6

RESULT 11
 RHLNGS

gonadoliberin - sea lamprey
 A:Alternate names: gonadotropin releasing hormone (GHRH)
 C:Species: *Petromyzon marinus* (sea lamprey)
 C:Date: 17-Mar-1987 #sequence_revision 17-Mar-1987 #text_change 18-Mar-1997
 C:Accession: A01412
 R:Sherwood, N.M.; Sower, S.A.; Marshak, D.R.; Fraser, B.A.; Brownstein, M.J.
 J. Biol. Chem. 261, 4812-4819, 1986
 A:Title: Primary structure of gonadotropin-releasing hormone from lamprey brain.
 A:Reference number: A01412; MUID:86168192; PMID:35114603
 A:Accession: A01412
 A:Molecule type: protein
 A:Residues: 1-10 <SHE>
 C:Comment: This hormone was isolated from the brain.
 C:Superfamily: gonadoliberin
 C:Keywords: amidated carboxyl end; hormone; pyroglutamic acid
 F:1/Modified site: pyrrolidone carboxylic acid (Gln) #status experimental
 F:10/Modified site: amidated carboxyl end (Gly) #status experimental

Query Match 47.2%; Score 17; DB 1; Length 10;
 Best Local Similarity 50.0%; Pred. No. 2.3e+03;
 Matches 2; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 3 XRWK 6
 :||
 Db 5 LEWK 8

RESULT 12
 S66248
 processing enzyme, 33K - black gram (fragment)
 C:Species: *Vigna mungo* (black gram)
 C:Date: 14-Feb-1997 #sequence_revision 13-Mar-1997 #text_change 13-Mar-1997
 C:Accession: S66248
 R:Okamoto, T.; Minamikawa, T.
 Eur. J. Biochem. 231, 300-305, 1995
 A:Title: Purification of a processing enzyme (VmpE-1) that is involved in post-translational
 A:Reference number: S66248; MUID:95361851; PMID:7635141
 A:Accession: S66248
 A>Status: preliminary
 A:Molecule type: protein
 A:Residues: 1-10 <OKA>

Query Match 47.2%; Score 17; DB 2; Length 10;
 Best Local Similarity 66.7%; Pred. No. 2.3e+03;
 Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
 :||
 Db 4 TRW 6

RESULT 13
 S23370
 T-cell receptor alpha chain J region - human (fragment)
 C:Species: *Homo sapiens* (man)
 C:Date: 22-Nov-1993 #sequence_revision 26-May-1995 #text_change 17-Mar-1999
 C:Accession: S23370
 R:Pluschke, G.; Ricken, G.; Taube, H.; Kroninger, S.; Melchers, I.; Peter, H.H.; Eichmann
 Eur. J. Immunol. 21, 2749-2754, 1991
 A:Title: Biased T cell receptor V(alpha) region repertoire in the synovial fluid of rheu
 A:Reference number: S23364; MUID:92037820; PMID:1657615
 A:Accession: S23370
 A>Status: preliminary; translation not shown
 A:Molecule type: mRNA
 A:Residues: 1-10 <PLU>
 A:Cross-references: EMBL:X58165
 C:Keywords: T-cell receptor

Query Match 47.2%; Score 17; DB 2; Length 10;
 Best Local Similarity 66.7%; Pred. No. 2.3e+03;
 Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5

Db 1 ERW 3
:||

RESULT 14

F49033
T-cell receptor gamma chain V-D-J region - human (fragment)
C:Species: Homo sapiens (man)
C:Date: 19-Dec-1993 #sequence_revision 17-Mar-2000 #text_change 17-Mar-2000
C:Accession: F49033
R;Morita, C.T.; Verma, S.; Aparicio, P.; Martinez, C.; Spits, H.; Brenner, M.B.
Eur. J. Immunol. 21, 2999-3007, 1991
A:Title: Functionally distinct subsets of human gamma/delta T cells.
A:Reference number: A49033; MUID:92083926; PMID:1684157
A:Accession: F49033
A:Status: preliminary
A:Molecule type: DNA
A:Residues: 1-10 <MAC>
A:Cross-references: GB:S72605; NID:g240700; PIDN:AAB20632.1; PID:g240701
A:Note: sequence extracted from NCBI backbone (NCBIN:72605, NCBIp:72606)
C:Keywords: T-cell receptor

Query Match 47.2%; Score 17; DB 2; Length 10;
Best Local Similarity 66.7%; Pred. No. 2.3e+03;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
:||
Db 5 ERW 7

RESULT 15

Tl7054
cytochrome-c oxidase (EC 1.9.3.1) chain I - Basillus plumifrons mitochondrion (fragment)
C:Species: Mitochondrion Basillus plumifrons
C:Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 22-Oct-1999
C:Accession: Tl7054
R;Macey, J.R.; Larson, A.; Ananjeva, N.B.; Papenfuss, T.J.
J. Mol. Evol. 44, 660-674, 1997
A:Title: Evolutionary shifts in three major structural features of the mitochondrial gen

A:Reference number: Z18674; MUID:97315309; PMID:9169559

A:Accession: Tl7054
A:Status: preliminary; translated from GB/EMBL/DBJ

A:Molecule type: DNA

A:Residues: 1-10 <MAC>

A:Cross-references: EMBL:U82680; NID:g3603104; PID:g3603107; PIDN:AAC62269.1

C:Genetics:

A:Genome: mitochondrion

A:Note: COI

C:Keywords: mitochondrion; oxidoreductase

Query Match 47.2%; Score 17; DB 2; Length 10;
Best Local Similarity 66.7%; Pred. No. 2.3e+03;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
:||
Db 4 NRW 6

RESULT 16

Tl7075
cytochrome-c oxidase (EC 1.9.3.1) chain I - Chamaeleo fischeri mitochondrion (fragment)
C:Species: Mitochondrion Chamaeleo fischeri
C:Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 22-Oct-1999
C:Accession: Tl7075
R;Macey, J.R.; Larson, A.; Ananjeva, N.B.; Papenfuss, T.J.
J. Mol. Evol. 44, 660-674, 1997
A:Title: Evolutionary shifts in three major structural features of the mitochondrial gen

A:Reference number: Z18674; MUID:97315309; PMID:9169559

A:Accession: Tl7075

A:Status: preliminary; translated from GB/EMBL/DBJ

A:Molecule type: DNA

A:Residues: 1-10 <MAC>
A:Cross-references: EMBL:U82688; NID:g3603112; PID:g3603115; PIDN:AAC62275.1
C:Genetics:
A:Genome: mitochondrion
A:Note: COI
C:Keywords: mitochondrion; oxidoreductase

Query Match 47.2%; Score 17; DB 2; Length 10;
Best Local Similarity 66.7%; Pred. No. 2.3e+03;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
:||
Db 4 LRW 6

RESULT 17

Tl3976
cytochrome-c oxidase (EC 1.9.3.1) chain I - Cnemidophorus tigris mitochondrion (fragment)
C:Species: Mitochondrion Cnemidophorus tigris
C:Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change 11-May-2000
C:Accession: Tl3976
R;Macey, J.R.; Larson, A.; Ananjeva, N.B.; Fang, Z.; Papenfuss, T.J.
Mol. Biol. Evol. 14, 91-104, 1997
A:Title: Two novel gene orders and the role of light-strand replication in rearrangement

A:Reference number: Z17789; MUID:97153826; PMID:9000757

A:Accession: Tl3976

A:Status: preliminary; translated from GB/EMBL/DBJ

A:Molecule type: DNA

A:Residues: 1-10 <MAC>

A:Cross-references: EMBL:U71332; NID:g1753236; PID:g1753239; PIDN:AAB48274.1

C:Genetics:

A:Genome: mitochondrion

A:Note: COI

C:Keywords: mitochondrion; oxidoreductase

Query Match 47.2%; Score 17; DB 2; Length 10;
Best Local Similarity 66.7%; Pred. No. 2.3e+03;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
:||
Db 4 TRW 6

RESULT 18

Tl7057
cytochrome-c oxidase (EC 1.9.3.1) chain I - Crotaphytus collaris mitochondrion (fragment)
C:Species: Mitochondrion Crotaphytus collaris
C:Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 22-Oct-1999
C:Accession: Tl7057
R;Macey, J.R.; Larson, A.; Ananjeva, N.B.; Papenfuss, T.J.
J. Mol. Evol. 44, 660-674, 1997
A:Title: Evolutionary shifts in three major structural features of the mitochondrial gen

A:Reference number: Z18674; MUID:97315309; PMID:9169559

A:Accession: Tl7057

A:Status: preliminary; translated from GB/EMBL/DBJ

A:Molecule type: DNA

A:Residues: 1-10 <MAC>

A:Cross-references: EMBL:U82681; NID:g3603108; PID:g3603111; PIDN:AAC62272.1

C:Genetics:

A:Genome: mitochondrion

A:Note: COI

C:Keywords: mitochondrion; oxidoreductase

Query Match 47.2%; Score 17; DB 2; Length 10;
Best Local Similarity 66.7%; Pred. No. 2.3e+03;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
:||
Db 4 TRW 6

```

RESULT 19
T12303
cytochrome-c oxidase (EC 1.9.3.1) chain I - Dipsosaurus dorsalis mitochondrion (fragment)
C:Species: mitochondrion Dipsosaurus dorsalis
C>Date: 23-Jul-1999 #sequence_revision 23-Jul-1999 #text_change 22-Oct-1999
C:Accession: T12303
R:Schulte, J.A.; Macey, J.R.; Larson, A.; Papenfuss, T.J.
Mol. Phylogenet. Evol. 10, 367-376, 1998
A:Title: Molecular tests of phylogenetic taxonomies: A general procedure and example using
A:Reference number: Z17488; MUID:99162288; PMID:10051389
A:Accession: T12303
A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-10 <SCH>
A:Cross-references: EMBL:AF049857; NID:g4105726; PID:g4105729; PIDN:AAD02514.1
C:Genetics:
A:Genome: mitochondrion
A>Note: COI
C:Keywords: mitochondrion; oxidoreductase

Query Match 47.2%; Score 17; DB 2; Length 10;
Best Local Similarity 66.7%; Pred. No. 2.3e+03;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
Db :||
4 TRW 6

RESULT 20
T14019
cytochrome-c oxidase (EC 1.9.3.1) chain I - Bremias grammica mitochondrion (fragment)
C:Species: mitochondrion Bremias grammica
C>Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change 11-May-2000
C:Accession: T14019
R:Macey, J.R.; Larson, A.; Ananjeva, N.B.; Fang, Z.; Papenfuss, T.J.
Mol. Biol. Evol. 14, 91-104, 1997
A:Title: Two novel gene orders and the role of light-strand replication in rearrangement
A:Reference number: Z17789; MUID:97153826; PMID:9000757
A:Accession: T14019
A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-10 <MAC>
A:Cross-references: EMBL:U71331; NID:g1753340; PID:g1753243; PIDN:AAB48277.1
C:Genetics:
A:Genome: mitochondrion
A>Note: COI
C:Keywords: mitochondrion; oxidoreductase

Query Match 47.2%; Score 17; DB 2; Length 10;
Best Local Similarity 66.7%; Pred. No. 2.3e+03;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
Db :||
4 TRW 6

RESULT 21
T17060
cytochrome-c oxidase (EC 1.9.3.1) chain I - Gambelia wislizenii mitochondrion (fragment)
C:Species: mitochondrion Gambelia wislizenii
C>Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 22-Oct-1999
C:Accession: T17060
R:Macey, J.R.; Larson, A.; Ananjeva, N.B.; Papenfuss, T.J.
J. Mol. Evol. 44, 660-674, 1997
A:Title: Evolutionary shifts in three major structural features of the mitochondrial gene
A:Reference number: Z18674; MUID:97315309; PMID:9169559
A:Accession: T17060
A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-10 <MAC>

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A:Cross-references: EMBL:U82682; NID:g3603120; PID:g3603123; PIDN:AAC62281.1
C:Genetics:
A:Genome: mitochondrion
A>Note: COI
C:Keywords: mitochondrion; oxidoreductase

Query Match 47.2%; Score 17; DB 2; Length 10;
Best Local Similarity 66.7%; Pred. No. 2.3e+03;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
Db :||
4 TRW 6

RESULT 22
T17063
cytochrome-c oxidase (EC 1.9.3.1) chain I - Hoplocercus spinosus mitochondrion (fragment)
C:Species: mitochondrion Hoplocercus spinosus
C>Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 22-Oct-1999
C:Accession: T17063
R:Macey, J.R.; Larson, A.; Ananjeva, N.B.; Papenfuss, T.J.
J. Mol. Evol. 44, 660-674, 1997
A:Title: Evolutionary shifts in three major structural features of the mitochondrial gene
A:Reference number: Z18674; MUID:97315309; PMID:9169559
A:Accession: T17063
A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-10 <MAC>
A:Cross-references: EMBL:U82683; NID:g3603124; PID:g3603127; PIDN:AAC62284.1
C:Genetics:
A:Genome: mitochondrion
A>Note: COI
C:Keywords: mitochondrion; oxidoreductase

Query Match 47.2%; Score 17; DB 2; Length 10;
Best Local Similarity 66.7%; Pred. No. 2.3e+03;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
Db :||
4 TRW 6

RESULT 23
T12325
cytochrome-c oxidase (EC 1.9.3.1) chain I - Leiocephalus carinatus mitochondrion (fragment)
C:Species: mitochondrion Leiocephalus carinatus
C>Date: 23-Jul-1999 #sequence_revision 23-Jul-1999 #text_change 22-Oct-1999
C:Accession: T12325
R:Schulte, J.A.; Macey, J.R.; Larson, A.; Papenfuss, T.J.
Mol. Phylogenet. Evol. 10, 367-376, 1998
A:Title: Molecular tests of phylogenetic taxonomies: A general procedure and example using
A:Reference number: Z17488; MUID:99162288; PMID:10051389
A:Accession: T12325
A:Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-10 <SCH>
A:Cross-references: EMBL:AF049864; NID:g4105754; PID:g4105757; PIDN:AAD02535.1
C:Genetics:
A:Genome: mitochondrion
A>Note: COI
C:Keywords: mitochondrion; oxidoreductase

Query Match 47.2%; Score 17; DB 2; Length 10;
Best Local Similarity 66.7%; Pred. No. 2.3e+03;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
Db :||
4 TRW 6

```


RESULT 24

Tl14043
 cytochrome-c oxidase (EC 1.9.3.1) chain I - Lialis jicari mitochondrion (fragment)
 C:Species: mitochondrion Lialis jicari
 C:Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change 11-May-2000
 C:Accession: Tl14043
 R:Macey, J.R.; Larson, A.; Ananjeva, N.B.; Fang, Z.; Papenfuss, T.J.
 J. Mol. Biol. Evol. 14, 91-104, 1997
 A:Title: Two novel gene orders and the role of light-strand replication in rearrangement
 A:Reference number: Z17789; MUID:97153826; PMID:9000757
 A:Accession: Tl14043
 A:Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: DNA
 A:Residues: 1-10 <MAC>
 A:Cross-references: EMBL:U71327; NID:gl753244; PID:gl753247; PIDN:AAB48280.1
 C:Genetics:
 A:Genome: mitochondrion
 A:Note: COI
 C:Keywords: mitochondrion; oxidoreductase

Query Match 47.2%; Score 17; DB 2; Length 10;
 Best Local Similarity 66.7%; Pred. No. 2.3e+03;
 Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 3 XRW 5
 :||
 Db 4 NRW 6

RESULT 25

Tl14054
 cytochrome-c oxidase (EC 1.9.3.1) chain I - Mabuya aurata mitochondrion (fragment)
 C:Species: mitochondrion Mabuya aurata
 C:Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change 11-May-2000
 C:Accession: Tl14054
 R:Macey, J.R.; Larson, A.; Ananjeva, N.B.; Fang, Z.; Papenfuss, T.J.
 J. Mol. Biol. Evol. 14, 91-104, 1997
 A:Title: Two novel gene orders and the role of light-strand replication in rearrangement
 A:Reference number: Z17789; MUID:97153826; PMID:9000757
 A:Accession: Tl14054
 A:Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: DNA
 A:Residues: 1-10 <MAC>
 A:Cross-references: EMBL:U71330; NID:gl753248; PID:gl753251; PIDN:AAB48283.1
 C:Genetics:
 A:Genome: mitochondrion
 A:Note: COI
 C:Keywords: mitochondrion; oxidoreductase

Query Match 47.2%; Score 17; DB 2; Length 10;
 Best Local Similarity 66.7%; Pred. No. 2.3e+03;
 Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 3 XRW 5
 :||
 Db 4 NRW 6

RESULT 26

Tl17066
 cytochrome-c oxidase (EC 1.9.3.1) chain I - Oplurus cuvieri mitochondrion (fragment)
 C:Species: mitochondrion Oplurus cuvieri
 C:Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 22-Oct-1999
 C:Accession: Tl17066
 R:Macey, J.R.; Larson, A.; Ananjeva, N.B.; Papenfuss, T.J.
 J. Mol. Biol. Evol. 14, 660-674, 1997
 A:Title: Evolutionary shifts in three major structural features of the mitochondrial gen
 A:Reference number: Z18674; MUID:97315309; PMID:9169559
 A:Accession: Tl17066
 A:Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: DNA
 A:Residues: 1-10 <MAC>
 A:Cross-references: EMBL:U82685; NID:g3603136; PID:g3603139; PIDN:AAC62293.1

C:Genetics:
 A:Genome: mitochondrion
 A:Note: COI
 C:Keywords: mitochondrion; oxidoreductase

Query Match 47.2%; Score 17; DB 2; Length 10;
 Best Local Similarity 66.7%; Pred. No. 2.3e+03;
 Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 3 XRW 5
 :||
 Db 4 NRW 6

RESULT 27

Tl17069
 cytochrome-c oxidase (EC 1.9.3.1) chain I - Phrynosoma douglassii mitochondrion (fragment)
 C:Species: mitochondrion Phrynosoma douglassii
 C:Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 22-Oct-1999
 C:Accession: Tl17069
 R:Macey, J.R.; Larson, A.; Ananjeva, N.B.; Papenfuss, T.J.
 J. Mol. Biol. Evol. 14, 660-674, 1997
 A:Title: Evolutionary shifts in three major structural features of the mitochondrial gen
 A:Reference number: Z18674; MUID:97315309; PMID:9169559
 A:Accession: Tl17069
 A:Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: DNA
 A:Residues: 1-10 <MAC>
 A:Cross-references: EMBL:U82686; NID:g3603144; PID:g3603147; PIDN:AAC62299.1
 C:Genetics:
 A:Genome: mitochondrion
 A:Note: COI
 C:Keywords: mitochondrion; oxidoreductase

Query Match 47.2%; Score 17; DB 2; Length 10;
 Best Local Similarity 66.7%; Pred. No. 2.3e+03;
 Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 3 XRW 5
 :||
 Db 4 NRW 6

RESULT 28

Tl2308
 cytochrome-c oxidase (EC 1.9.3.1) chain I - Sator angustus mitochondrion (fragment)
 C:Species: mitochondrion Sator angustus
 C:Date: 23-Jul-1999 #sequence_revision 23-Jul-1999 #text_change 22-Oct-1999
 C:Accession: Tl2308
 R:Schulte, J.A.; Macey, J.R.; Larson, A.; Papenfuss, T.J.
 Mol. Phylogenet. Evol. 10, 367-376, 1998
 A:Title: Molecular tests of phylogenetic taxonomies: A general procedure and example usi
 A:Reference number: Z17488; MUID:99162288; PMID:10051389
 A:Accession: Tl2308
 A:Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: DNA
 A:Residues: 1-10 <SCH>
 A:Cross-references: EMBL:AF049859; NID:g4105734; PID:g4105737; PIDN:AAD02520.1

C:Genetics:
 A:Genome: mitochondrion
 A:Note: COI
 C:Keywords: mitochondrion; oxidoreductase

Query Match 47.2%; Score 17; DB 2; Length 10;
 Best Local Similarity 66.7%; Pred. No. 2.3e+03;
 Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 3 XRW 5
 :||
 Db 4 NRW 6

RESULT 29

T17072
 cytochrome-c oxidase (EC 1.9.3.1) chain I - Saumalus obesus mitochondrion (fragment)
 C:Species: mitochondrion Saumalus obesus
 C>Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 22-Oct-1999
 C:Accession: T17072
 R:Macey, J.R.; Larson, A.; Ananjeva, N.B.; Papenfuss, T.J.
 J. Mol. Evol. 44, 660-674, 1997
 A>Title: Evolutionary shifts in three major structural features of the mitochondrial gene
 A:Reference number: Z18674; MUID:97315309; PMID:9169559
 A:Accession: T17072
 A>Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: DNA
 A:Residues: 1-10 <MAC>
 A:Cross-references: EMBL:U82687; NID:g3603152; PID:g3603155; PIDN:AAC62305.1
 C:Genetics:
 A:Genome: mitochondrion
 A>Note: COI
 C:Keywords: mitochondrion; oxidoreductase

Query Match 47.2%; Score 17; DB 2; Length 10;
 Best Local Similarity 66.7%; Pred. No. 2.3e+03;
 Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
 :||
 Db 4 TRW 6

RESULT 30
 T12312
 cytochrome-c oxidase (EC 1.9.3.1) chain I - Sceloporus graciosus mitochondrion (fragment)
 C:Species: mitochondrion Sceloporus graciosus
 C>Date: 23-Jul-1999 #sequence_revision 23-Jul-1999 #text_change 22-Oct-1999
 C:Accession: T12312
 R:Schulte, J.A.; Macey, J.R.; Larson, A.; Papenfuss, T.J.
 Mol. Phylogenet. Evol. 10, 367-376, 1998
 A>Title: Molecular tests of phylogenetic taxonomies: A general procedure and example using
 A:Reference number: Z17488; MUID:99162288; PMID:10051389
 A:Accession: T12312
 A>Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: DNA
 A:Residues: 1-10 <SCH>
 A:Cross-references: EMBL:AF049860; NID:g4105738; PID:g4105741; PIDN:AAD02523.1
 C:Genetics:
 A:Genome: mitochondrion
 A>Note: COI
 C:Keywords: mitochondrion; oxidoreductase

Query Match 47.2%; Score 17; DB 2; Length 10;
 Best Local Similarity 66.7%; Pred. No. 2.3e+03;
 Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
 :||
 Db 4 NRW 6

RESULT 31
 T12329
 cytochrome-c oxidase (EC 1.9.3.1) chain I - Stenocercus crassicaudatus mitochondrion (fragment)
 C:Species: mitochondrion Stenocercus crassicaudatus
 C>Date: 23-Jul-1999 #sequence_revision 23-Jul-1999 #text_change 22-Oct-1999
 C:Accession: T12329
 R:Schulte, J.A.; Macey, J.R.; Larson, A.; Papenfuss, T.J.
 Mol. Phylogenet. Evol. 10, 367-376, 1998
 A>Title: Molecular tests of phylogenetic taxonomies: A general procedure and example using
 A:Reference number: Z17488; MUID:99162288; PMID:10051389
 A:Accession: T12329
 A>Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: DNA
 A:Residues: 1-10 <SCH>
 A:Cross-references: EMBL:AF049866; NID:g4105762; PID:g4105765; PIDN:AAD02541.1
 C:Genetics:

A:Genome: mitochondrion
 A>Note: COI
 C:Keywords: mitochondrion; oxidoreductase

Query Match 47.2%; Score 17; DB 2; Length 10;
 Best Local Similarity 66.7%; Pred. No. 2.3e+03;
 Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
 :||
 Db 4 NRW 6

RESULT 32
 T12316
 cytochrome-c oxidase (EC 1.9.3.1) chain I - Uma scoparia mitochondrion (fragment)
 C:Species: mitochondrion Uma scoparia
 C>Date: 23-Jul-1999 #sequence_revision 23-Jul-1999 #text_change 22-Oct-1999
 C:Accession: T12316
 R:Schulte, J.A.; Macey, J.R.; Larson, A.; Papenfuss, T.J.
 Mol. Phylogenet. Evol. 10, 367-376, 1998
 A>Title: Molecular tests of phylogenetic taxonomies: A general procedure and example using
 A:Reference number: Z17488; MUID:99162288; PMID:10051389
 A:Accession: T12316
 A>Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: DNA
 A:Residues: 1-10 <SCH>
 A:Cross-references: EMBL:AF049861; NID:g4105742; PID:g4105745; PIDN:AAD02526.1
 C:Genetics:
 A:Genome: mitochondrion
 A>Note: COI
 C:Keywords: mitochondrion; oxidoreductase

Query Match 47.2%; Score 17; DB 2; Length 10;
 Best Local Similarity 66.7%; Pred. No. 2.3e+03;
 Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
 :||
 Db 4 NRW 6

RESULT 33
 T14212
 cytochrome-c oxidase (EC 1.9.3.1) chain I - Uromastix acanthinurus mitochondrion (fragment)
 C:Species: mitochondrion Uromastix acanthinurus
 C>Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change 11-May-2000
 C:Accession: T14212
 R:Macey, J.R.; Larson, A.; Ananjeva, N.B.; Fang, Z.; Papenfuss, T.J.
 Mol. Biol. Evol. 14, 91-104, 1997
 A>Title: Two novel gene orders and the role of light-strand replication in rearrangement
 A:Reference number: Z17789; MUID:97153826; PMID:9000757
 A:Accession: T14212
 A>Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: DNA
 A:Residues: 1-10 <MAC>
 A:Cross-references: EMBL:U71325; NID:g1753264; PID:g1753267; PIDN:AAC62249.1
 C:Genetics:
 A:Genome: mitochondrion
 A>Note: COI
 C:Keywords: mitochondrion; oxidoreductase

Query Match 47.2%; Score 17; DB 2; Length 10;
 Best Local Similarity 66.7%; Pred. No. 2.3e+03;
 Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
 :||
 Db 4 HRW 6

RESULT 34
 T12321

cytochrome-c oxidase (EC 1.9.3.1) chain I - Uta stansburiana mitochondrion (fragment)
 C;Species: mitochondrion Uta stansburiana
 C;Date: 23-Jul-1999 #sequence_revision 23-Jul-1999 #text_change 22-Oct-1999
 C;Accession: T12321
 R;Schulte, J.A.; Macey, J.R.; Larson, A.; Papenfuss, T.J.
 Mol. Phylogenet. Evol. 10, 367-376, 1998
 A;Title: Molecular tests of phylogenetic taxonomies: A general procedure and example using Uta stansburiana
 A;Reference number: Z17488; MUID:99162288; PMID:10051389
 A;Accession: T12321
 A;Status: preliminary; translated from GB/EMBL/DBJ
 A;Molecule type: DNA
 A;Residues: 1-10 <SCH>
 A;Cross-references: EMBL:AF049863; NID:94105750; PID:94105753; PIDN:AAD02532.1
 C;Genetics:
 A;Genome: mitochondrion
 A;Note: COI
 C;Keywords: mitochondrion; oxidoreductase

Query Match 47.2%; Score 17; DB 2; Length 10;
 Best Local Similarity 66.7%; Pred. No. 2.3e+03;
 Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 3 XRW 5
 :||
 Db 4 NRW 6

RESULT 35
 T14215
 cytochrome-c oxidase (EC 1.9.3.1) chain I - Varanus griseus mitochondrion (fragment)
 C;Species: mitochondrion Varanus griseus
 C;Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change 11-May-2000
 C;Accession: T14215
 R;Macey, J.R.; Larson, A.; Ananjeva, N.B.; Pang, Z.; Papenfuss, T.J.
 Mol. Biol. Evol. 14, 91-104, 1997
 A;Title: Two novel gene orders and the role of light-strand replication in rearrangement of Varanus griseus
 A;Reference number: Z17789; MUID:97153826; PMID:9000757
 A;Accession: T14215
 A;Status: preliminary; translated from GB/EMBL/DBJ
 A;Molecule type: DNA
 A;Residues: 1-10 <MAC>
 A;Cross-references: EMBL:U71334; NID:93688056; PID:g1753271; PIDN:AAD12669.1
 C;Genetics:
 A;Genome: mitochondrion
 A;Note: COI
 C;Keywords: mitochondrion; oxidoreductase

Query Match 47.2%; Score 17; DB 2; Length 10;
 Best Local Similarity 66.7%; Pred. No. 2.3e+03;
 Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 3 XRW 5
 :||
 Db 4 TRW 6

RESULT 36
 T14223
 cytochrome-c oxidase (EC 1.9.3.1) chain I - Xantusia vigilis mitochondrion (fragment)
 C;Species: mitochondrion Xantusia vigilis
 C;Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change 11-May-2000
 C;Accession: T14223
 R;Macey, J.R.; Larson, A.; Ananjeva, N.B.; Pang, Z.; Papenfuss, T.J.
 Mol. Biol. Evol. 14, 91-104, 1997
 A;Title: Two novel gene orders and the role of light-strand replication in rearrangement of Xantusia vigilis
 A;Reference number: Z17789; MUID:97153826; PMID:9000757
 A;Accession: T14223
 A;Status: preliminary; translated from GB/EMBL/DBJ
 A;Molecule type: DNA
 A;Residues: 1-10 <MAC>
 A;Cross-references: EMBL:U71328; NID:g1753276; PID:g1753279; PIDN:AAB48291.1
 C;Genetics:
 A;Genome: mitochondrion

A;Note: COI
 C;Keywords: mitochondrion; oxidoreductase

Query Match 47.2%; Score 17; DB 2; Length 10;
 Best Local Similarity 66.7%; Pred. No. 2.3e+03;
 Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 3 XRW 5
 :||
 Db 4 TRW 6

RESULT 37
 T14219
 cytochrome-c oxidase (EC 1.9.3.1) chain I - Xenosaurus grandis mitochondrion (fragment)
 C;Species: mitochondrion Xenosaurus grandis
 C;Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change 21-Jul-2000
 C;Accession: T14219
 R;Macey, J.R.; Larson, A.; Ananjeva, N.B.; Pang, Z.; Papenfuss, T.J.
 Mol. Biol. Evol. 14, 91-104, 1997
 A;Title: Two novel gene orders and the role of light-strand replication in rearrangement of Xenosaurus grandis
 A;Reference number: Z17789; MUID:97153826; PMID:9000757
 A;Accession: T14219
 A;Status: preliminary; translated from GB/EMBL/DBJ
 A;Molecule type: DNA
 A;Residues: 1-10 <MAC>
 A;Cross-references: EMBL:U71333; NID:g5739536; PIDN:AAC62821.1; PID:g1753275
 C;Genetics:
 A;Genome: mitochondrion
 A;Note: COI
 C;Keywords: mitochondrion; oxidoreductase

Query Match 47.2%; Score 17; DB 2; Length 10;
 Best Local Similarity 66.7%; Pred. No. 2.3e+03;
 Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 3 XRW 5
 :||
 Db 4 TRW 6

RESULT 38
 PD0028
 Dev-kinin 2 - penaeid shrimp (Penaeus vannamei) (fragment)
 C;Species: Penaeus vannamei
 C;Date: 21-Aug-1998 #sequence_revision 21-Aug-1998 #text_change 19-May-2000
 C;Accession: PD0028
 R;Nieto, J.; Veelaert, D.; Dervae, R.; Waelkens, E.; Cerstiaens, A.; Coast, G.; Devreese, B.; et al.
 Biochem. Biophys. Res. Commun. 248, 406-411, 1998
 A;Title: Identification of one tachykinin- and two kinin-related peptides in the brain of Penaeus vannamei
 A;Reference number: PD0027; MUID:98342103; PMID:9675150
 A;Accession: PD0028
 A;Molecule type: protein
 A;Residues: 1-6 <NIE>
 C;Comment: This peptide belongs to myotropic neuropeptides.

Query Match 44.4%; Score 16; DB 2; Length 6;
 Best Local Similarity 40.0%; Pred. No. 2.8e+05;
 Matches 2; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 1 DXRW 5
 :||
 Db 1 DFSAW 5

RESULT 39
 I79564
 hypothetical TCL3 protein (mistranslated) - human (fragment)
 C;Species: Homo sapiens (man)
 C;Date: 28-Jan-2000 #sequence_revision 28-Jan-2000 #text_change 28-Jan-2000
 C;Accession: I79564
 R;Zutter, M.; Hockett, R.D.; Roberts, C.W.; McGuire, E.A.; Bloomstone, J.; Morton, C.C.; et al.
 Proc. Natl. Acad. Sci. U.S.A. 87, 3161-3165, 1990

A:Title: The t(10;14)(q24;q11) of T-cell acute lymphoblastic leukemia juxtaposes the del

A:Reference number: I59162; MUID:90222189; PMID:2326274

A:Accession: J79564

A:Status: translation not shown; translated from GB/EMBL/DBDJ

A:Molecule type: DNA

A:Residues: 1-6 <ZUT>

A:Cross-references: GB:M33602; NID:933907; PIDN:AAA6449.1; PID:9807656

C:Comment: This is the hypothetical translation of a sequence translated in an incorrect

Query Match 44.4%; Score 16; DB 4; Length 6;

Best Local Similarity 100.0%; Pred. No. 2.8e+05;

Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 4 RW 5

DB 1 RW 2

RESULT 40

S33244

neuromodulatory peptide Wamide-1 - giant African snail

C:Species: Achatina fulica (giant African snail)

C>Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 24-Jul-1997

C:Accession: S33244

R:Minakata, H.; Ikeda, T.; Muneoka, Y.; Kobayashi, M.; Nomoto, K.

FEBS Lett. 323, 104-108, 1993

A:Title: Wamide-1, -2 and -3: novel neuromodulatory peptides isolated from ganglia of b

A:Reference number: S33244; MUID:93265912; PMID:8495720

A:Accession: S33244

A:Status: preliminary

A:Molecule type: protein

A:Residues: 1-7 <MIN>

Query Match

44.4%; Score 16; DB 2; Length 7;

Best Local Similarity 100.0%; Pred. No. 2.8e+05;

Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 5 WK 6

DB 1 WK 2

RESULT 41

S33246

neuromodulatory peptide Wamide-3 - giant African snail

C:Species: Achatina fulica (giant African snail)

C>Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 24-Jul-1997

C:Accession: S33246

R:Minakata, H.; Ikeda, T.; Muneoka, Y.; Kobayashi, M.; Nomoto, K.

FEBS Lett. 323, 104-108, 1993

A:Title: Wamide-1, -2 and -3: novel neuromodulatory peptides isolated from ganglia of b

A:Reference number: S33244; MUID:93265912; PMID:8495720

A:Accession: S33246

A:Status: preliminary

A:Molecule type: protein

A:Residues: 1-7 <MIN>

Query Match

44.4%; Score 16; DB 2; Length 7;

Best Local Similarity 100.0%; Pred. No. 2.8e+05;

Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 5 WK 6

DB 1 WK 2

RESULT 42

JS0318

leucokinin VII - Madeira cockroach

C:Species: Leucophaea maderae (Madeira cockroach)

C>Date: 07-Sep-1990 #sequence_revision 07-Sep-1990 #text_change 20-Jun-2000

C:Accession: JS0318

R:Holman, G.M.; Cook, B.J.; Nachman, R.J.

beta-crystallin B2 - rat (fragment)

Comp. Biochem. Physiol. C 88, 31-34, 1987

A:Title: Isolation, primary structure and synthesis of leucokinins VII and VIII: the fin

A:Reference number: JS0317

A:Accession: JS0318

A:Molecule type: protein

A:Residues: 1-8 <HOL>

C:Comment: Leucokinins, a family of cephalomyotropic peptides, stimulate contractile act

C:Keywords: amidated carboxyl end; cephalomyotropic peptide

F:8/Modified site: amidated carboxyl end (Gly) #status experimental

Query Match

44.4%; Score 16; DB 2; Length 8;

Best Local Similarity 40.0%; Pred. No. 2.8e+05;

Matches 2; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 1 DHXRW 5

DB 3 DFYSW 7

RESULT 43

A49187

gonadotropin-releasing hormone III - sea lamprey

C:Species: Petromyzon marinus (sea lamprey)

C>Date: 19-Dec-1993 #sequence_revision 18-Nov-1994 #text_change 03-Mar-1995

C:Accession: A49187

R:Sower, S.A.; Chiang, Y.C.; Lovas, S.; Conlon, J.M.

Endocrinology 132, 1125-1131, 1993

A:Title: Primary structure and biological activity of a third gonadotropin-releasing hor

A:Reference number: A49187; MUID:93178316; PMID:8440174

A:Accession: A49187

A:Status: preliminary

A:Molecule type: protein

A:Residues: 1-10 <SOW>

A:Experimental source: brain

A>Note: sequence extracted from NCBI backbone (NCBIP:126381)

Query Match

44.4%; Score 16; DB 2; Length 10;

Best Local Similarity 100.0%; Pred. No. 3.5e+03;

Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 5 WK 6

DB 7 WK 8

RESULT 44

PT0245

Ig heavy chain CRD3 region (clone 2-103C) - human (fragment)

C:Species: Homo sapiens (man)

C>Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Aug-1996

C:Accession: PT0245

R:Yamada, M.; Wasserman, R.; Reichard, B.A.; Shane, S.; Caton, A.J.; Rovera, G.

J. Exp. Med. 173, 395-407, 1991

A:Title: Preferential utilization of specific immunoglobulin heavy chain diversity and j

A:Reference number: PT0222; MUID:91108337; PMID:1899102

A:Accession: PT0245

A:Molecule type: DNA

A:Residues: 1-10 <YAM>

A:Experimental source: B lymphocyte

C:Keywords: heterotrimer; immunoglobulin

Query Match

44.4%; Score 16; DB 2; Length 10;

Best Local Similarity 40.0%; Pred. No. 3.5e+03;

Matches 2; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 1 DHXRW 5

DB 6 DGYNW 10

RESULT 45

S71349

Wed May 19 07:27:48 2004

C;Species: Rattus norvegicus (Norway rat)
C;Date: 29-Jan-1998 #sequence_revision 06-Feb-1998 #text_change 07-May-1999
C;Accession: S71349
R;Dirks, R.P.H.; Kraft, H.J.; van Genesen, S.T.; Klok, E.J.; Pfundt, R.; Schoenmakers, J.
Eur. J. Biochem. 239, 23-32, 1996
A;Title: The cooperation between two silencers creates an enhancer element that controls
A;Reference number: S71349; MUID:96305362; PMID:8706714
A;Accession: S71349
A;Status: translation not shown
A;Molecule type: DNA
A;Residues: 1-6 <DIR>
A;Cross-references: EMBL:X83671
A;Experimental source: strain Wistar; lens epithelial cells
C;Genetics:
A;Gene: CRYBB2

Query Match 41.7%; Score 15; DB 2; Length 6;
Best Local Similarity 66.7%; Pred. No. 2.8e+05;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Oy 1 DHX 3
||:
Db 4 DHQ 6

Search completed: May 18, 2004, 15:56:53
Job time : 21 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: May 18, 2004, 15:53:56 ; Search time 11 seconds
(without alignments)
28.402 Million cell updates/sec

Title: CLAIM11
Perfect score: 36
Sequence: 1 DHXRWK 6

Scoring table: BLOSUM62DX
Gapop 10.0 , Gapext 0.5

Searched: 141681 seqs, 52070155 residues

Total number of hits satisfying chosen parameters: 371

Minimum DB seq length: 0
Maximum DB seq length: 10

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SwissProt_42:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match %	Length	ID	Description
1	22	61.1	8	1 ACI_THUAL	P18691 thunnus alb
2	18	50.0	8	1 CCKN_MACEU	P30369 macropus eu
3	18	50.0	10	1 CA12_LITCI	P82086 litoria cit
4	18	50.0	10	1 CAER_LITXA	P56264 litoria xan
5	17	47.2	5	1 UF01_MOUSE	P38639 mus musculus
6	17	47.2	10	1 GON1_PETMA	P04378 petromyzon
7	16	44.4	7	1 WNA2_ACHFU	P35920 achatina fu
8	16	44.4	7	1 WNA3_ACHFU	P35921 achatina fu
9	16	44.4	8	1 LCK8_LEUMA	P19990 leucophaea
10	16	44.4	9	1 COW_CONVE	P83047 conus ventr
11	16	44.4	10	1 GON3_PETMA	P30948 petromyzon
12	15	41.7	7	1 CHOX_ALCSP	P16101 alcaligenes
13	15	41.7	9	1 NSKL_SARBU	P41492 sarcophaga
14	15	41.7	10	1 AEGU_AGRAE	P83465 agropyra ae
15	15	41.7	10	1 FARP_LOCFI	P38553 locusta mig
16	15	41.7	10	1 FARP_MYED	P42560 mytilus edu
17	15	41.7	10	1 GLEM_HUMAN	P02728 homo sapien
18	15	41.7	10	1 LCKS_LEUMA	P21144 leucophaea
19	15	41.7	10	1 LSK2_LEUMA	P09039 leucophaea
20	14	38.9	5	1 BPP7_BOTIN	P30425 bothrops in
21	14	38.9	9	1 FIBB_PAPHA	P19343 papio hamad
22	14	38.9	9	1 NEF_HV128	P35919 achatina fu
23	13	36.1	7	1 WNA1_ACHFU	P81707 brassica na
24	13	36.1	8	1 PLP_BRANA	P08945 litoria aur
25	13	36.1	9	1 LITO_LITAU	P81533 microplitis
26	13	36.1	10	1 MP2_MICOC	P55962 nicotiana t
27	13	36.1	10	1 NO40_TOBAC	P41863 calliphora
28	13	33.3	8	1 FAR8_CALVO	P04548 periplaneta
29	12	33.3	8	1 HTP1_PERAM	P04549 periplaneta
30	12	33.3	8	1 HTP2_PERAM	P25419 tenebrio mo
31	12	33.3	8	1 HTP_TENNO	P41856 calliphora
32	12	33.3	9	1 FAR1_CALVO	P41857 calliphora
33	12	33.3	9	1 FAR2_CALVO	

34	12	33.3	9	1 FAR3_CALVO	P41858 calliphora
35	12	33.3	9	1 FAR4_CALVO	P41859 calliphora
36	12	33.3	9	1 FAR5_CALVO	P41860 calliphora
37	12	33.3	9	1 FAR6_CALVO	P41861 calliphora
38	12	33.3	9	1 FAR7_CALVO	P41862 calliphora
39	12	33.3	9	1 FAR8_CALVO	P41865 calliphora
40	12	33.3	9	1 FRF1_SARBU	P83350 sarcophaga
41	12	33.3	9	1 LMIP_LOCFI	P31799 locusta mig
42	12	33.3	9	1 PTSP_BOMMO	P82003 bombyx mori
43	12	33.3	10	1 BPP2_BOTIN	P30422 bothrops in
44	12	33.3	10	1 BPP2_BOTUA	P01022 bothrops ja
45	12	33.3	10	1 BPP8_BOTIN	P30426 bothrops in

ALIGNMENTS

RESULT 1
ACI_THUAL ACI_THUAL STANDARD; PRT; 8 AA.
AC P18691;
DT 01-NOV-1990 (Rel. 16, Created)
DT 01-NOV-1990 (Rel. 16, Last sequence update)
DT 01-NOV-1990 (Rel. 16, Last annotation update)
DE Angiotensin-converting enzyme inhibitor.
OS Thunnus albacares (Yellowfin tuna) (Neothunnus macropterus).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
OC Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Scombroidei;
OC Scombridae; Thunnus.
OX NCBI_TaxID=8236;
RN [1]
RP SEQUENCE.
RC TISSUE=Muscle;
RX MEDLINE=88326322; PubMed=3415688;
RA Kohama Y., Matsumoto S., Oka H., Teramoto T., Okabe M., Mimura T.;
RT "Isolation of angiotensin-converting enzyme inhibitor from tuna muscle."
RL Biochem. Biophys. Res. Commun. 155:332-337(1988).
DR PIR: A31570; A31570.
SQ SEQUENCE 8 AA; 953 MW; 6AA863733051F1B7 CRC64;

Query Match 61.1%; Score 22; DB 1; Length 8;
Best Local Similarity 50.0%; Pred. NO. 1.4e+05;
Matches 2; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 2 HXRW 5
DB 3 HIKW 6

RESULT 2
CCKN_MACEU CCKN_MACEU STANDARD; PRT; 8 AA.
AC P30369;
DT 01-APR-1993 (Rel. 25, Created)
DT 01-APR-1993 (Rel. 25, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE Cholecystokinin (CCK).
GN CCK.
OS Macropus eugenii (Tamar wallaby), and
OS Dasyurus viverrinus (Southeastern quoll).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Metatheria; Diprotodontia; Macropodidae; Macropus.
OX NCBI_TaxID=9315, 9279;
RN [1]
RP SEQUENCE.
RC SPECIES=M. eugenii, and D. viverrinus;
RC TISSUE=Brain;
RX MEDLINE=88234141; PubMed=3375140;
RA Fan Z. W., Eng J., Shaw G., Yalow R.S.;
RT "Cholecystokinin octapeptide purified from brains of Australian marsupials.";

```

RL Peptides 9:429-431(1988).
CC -!- FUNCTION: This peptide hormone induces gall bladder contraction
CC and the release of pancreatic enzymes in the gut. Its function in
CC the brain is not clear.
CC -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
DR PIR; A43001; A43001.
DR PIR; P00012; P00012.
DR InterPro; IPR001651; Gastrin.
DR PROSITE; PS00259; GASTRIN; 1.
KW Amidation; Sulfation; Hormone.
FT MOD_RES 2 8 SULFATION.
FT MOD_RES 8 8 AMIDATION.
SQ SEQUENCE 8 AA; 1064 MW; DDCAA68378768B5A CRC64;

Query Match
Best Local Similarity 50.0%; Score 18; DB 1; Length 8;
Matches 2; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 1 DHXRW 5
DB 1 DYTGW 5

RESULT 3
CA12_LITCI STANDARD; PRT; 10 AA.
AC P82086;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE Caerulein 1.2/1.2Y4.
OS Litoria citropa (Australian blue mountains tree frog), and
OS Litoria splendida (Magnificent tree frog).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Neobatrachia; Hylidae;
OC Pelodyadinae; Litoria.
OX NCBI_TaxID=94770, 30345;
RN [1]
RP SEQUENCE, AND MASS SPECTROMETRY (CAERULEIN 1.2 AND 1.2Y4).
RC SPECIES=L. citropa; TISSUE=Skin secretion;
RX MEDLINE=20057701; PubMed=10589099;
RA Wabnitz P.A., Bowie J.H., Tyler M.J.;
RT "Caerulein-like peptides from the skin glands of the Australian blue
RT mountains tree frog Litoria citropa. Part 1. Sequence determination
RT using electrospray mass spectrometry."
RL Rapid Commun. Mass Spectrom. 13:2498-2502(1999).
RN [2]
RP SEQUENCE, AND MASS SPECTROMETRY (CAERULEIN 1.2).
RC SPECIES=L. splendida; TISSUE=Skin secretion;
RX MEDLINE=20069371; PubMed=10601876;
RA Wabnitz P.A., Bowie J.H., Tyler M.J., Wallace J.C., Smith B.P.;
RT "Differences in the skin peptides of the male and female Australian
RT tree frog Litoria splendida. The discovery of the aquatic male sex
RT pheromone splendipherin, together with Phe8 caerulein and the
RT antimicrobial peptide caerin 1.10."
RL Eur. J. Biochem. 267:269-275(2000).
CC -!- FUNCTION: Hypotensive neuropeptide (Probable).
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC -!- PTM: Isoform 1.2Y4 differs from isoform 1.2 in not being
CC sulfated.
CC -!- MASS SPECTROMETRY: MW=1366; METHOD=Electrospray.
CC -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
DR InterPro; IPR001651; Gastrin.
DR PROSITE; PS00259; GASTRIN; FALSE NEG.
KW Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW Pyrrolidone carboxylic acid.
FT MOD_RES 1 1 PYRROLIDONE CARBOXYLIC ACID.
FT MOD_RES 4 4 SULFATION.
FT MOD_RES 10 10 AMIDATION.
SQ SEQUENCE 10 AA; 1306 MW; 99DBFCD37861BB5A CRC64;

Query Match
Best Local Similarity 50.0%; Score 18; DB 1; Length 10;
Matches 2; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

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Best Local Similarity 40.0%; Pred. No. 7.8e+02;
Matches 2; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 1 DHXRW 5
DB 3 DYTGW 7

RESULT 4
CAER_LITXA STANDARD; PRT; 10 AA.
AC P56264;
DT 15-JUL-1998 (Rel. 36, Created)
DT 15-JUL-1998 (Rel. 36, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE Caerulein.
OS Litoria xanthomera (Orange-thighed frog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Neobatrachia; Hylidae;
OC Pelodyadinae; Litoria.
OX NCBI_TaxID=79697;
RN [1]
RP SEQUENCE, AND MASS SPECTROMETRY.
RC TISSUE=Skin secretion;
RX MEDLINE=97374000; PubMed=9230483;
RA Steinboerner S.T., Waugh R.J., Bowie J.H., Wallace J.C., Tyler M.J.,
RA Ramsay S.L.;
RT "New caerin antibacterial peptides from the skin glands of the
RT Australian tree frog Litoria xanthomera."
RL J. Pept. Sci. 3:181-185(1997).
CC -!- FUNCTION: Hypotensive neuropeptide.
CC -!- SUBCELLULAR LOCATION: Secreted.
CC -!- TISSUE SPECIFICITY: Skin dorsal glands.
CC -!- MASS SPECTROMETRY: MW=1354; METHOD=PR.
CC -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
DR InterPro; IPR001651; Gastrin.
DR PROSITE; PS00259; GASTRIN; 1.
KW Amphibian defense peptide; Hypotensive agent; Amidation; Sulfation;
KW Pyrrolidone carboxylic acid.
FT MOD_RES 1 1 PYRROLIDONE CARBOXYLIC ACID.
FT MOD_RES 4 4 SULFATION.
FT MOD_RES 10 10 AMIDATION.
SQ SEQUENCE 10 AA; 1290 MW; 99DBF3837861BB5A CRC64;

Query Match
Best Local Similarity 40.0%; Score 18; DB 1; Length 10;
Matches 2; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 1 DHXRW 5
DB 3 DYTGW 7

RESULT 5
UF01_MOUSE STANDARD; PRT; 5 AA.
AC P38639;
DT 01-OCT-1994 (Rel. 30, Created)
DT 01-OCT-1994 (Rel. 30, Last sequence update)
DT 15-MAR-2004 (Rel. 43, Last annotation update)
DE Unknown protein from 2D-page of fibroblasts (P19) (Fragment).
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE.
RC TISSUE=Fibroblast;
RX MEDLINE=95009907; PubMed=7523108;
RA Merrick B.A., Patterson R.M., Wichter L.L., He C., Selkirk J.K.;
RT "Separation and sequencing of familial and novel murine proteins
RT using preparative two-dimensional gel electrophoresis."
RL Electrophoresis 15:735-745(1994).

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CC -!- MISCELLANEOUS: On the 2D-gel the determined pI of this unknown
 CC protein is: 6.6, its MW is: 19 kDa.

FT NON_TPR 5
 SQ SEQUENCE 5 AA; 717 MW; 7364087043100000 CRC64;

Query Match 47.2%; Score 17; DB 1; Length 5;

Best Local Similarity 66.7%; Pred. No. 1.4e+05;
 Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5

Db : ||

3 GRW 5

RESULT 6

GN1_PETMA STANDARD; PRT; 10 AA.

AC P04378;

DT 20-MAR-1987 (Rel. 04, Created)

DT 20-MAR-1987 (Rel. 04, Last sequence update)

DT 28-FEB-2003 (Rel. 41, Last annotation update)

DE Gonadoliberin I (Gonadotropin-releasing hormone I) (GNRH-I)

DE (Luliberin I).

OS Petromyzon marinus (Sea lamprey).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Hyperoartia;

OC Petromyzontiformes; Petromyzontidae; Petromyzon.

OX NCBI_TaxID=7757;

RN [1]

RP SEQUENCE.

RC TISSUE=Brain;

RX MEDLINE=86168192; PubMed=3514603;

RA Sherwood N.M., Sower S.A., Marshak D.R., Fraser B.A., Brownstein M.J.;

RT "Primary structure of gonadotropin-releasing hormone from lamprey

brain";

RU J. Biol. Chem. 261:4812-4819(1986).

CC -!- FUNCTION: Stimulates the secretion of gonadotropins; it stimulates

CC the secretion of both luteinizing and follicle-stimulating

CC hormones.

CC -!- SUBCELLULAR LOCATION: Secreted.

CC -!- SIMILARITY: Belongs to the GNRH family.

DR PIR; A01412; RHLMS.

DR InterPro; IPR002012; GNRH.

DR Pfam; PF00446; GNRH; 1.

DR PROSITE; PS00473; GNRH; 1.

DR Hormone; Amidation; Hypothalamus; Pyrirolidone carboxylic acid.

FT MOD_RES 1 1 PYRROLIDONE CARBOXYLIC ACID.

FT MOD_RES 10 10 AMIDATION.

FT SEQUENCE 10 AA; 1244 MW; 1E4B36237B1735AB CRC64;

Query Match 47.2%; Score 17; DB 1; Length 10;

Best Local Similarity 50.0%; Pred. No. 1.2e+03;

Matches 2; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 3 XRW 6

Db : ||

5 LEWK 8

RESULT 7

WMA2_ACHFUF

ID WMA2_ACHFUF STANDARD; PRT; 7 AA.

AC P35920;

DT 01-JUN-1994 (Rel. 29, Created)

DT 01-JUN-1994 (Rel. 29, Last sequence update)

DT 01-OCT-1994 (Rel. 30, Last annotation update)

DE Wwamide-2.

OS Achatina fulica (Giant African snail).

OC Eukaryota; Metazoa; Mollusca; Gastropoda; Pulmonata; Stylommatophora;

OC Sigmurethra; Achatinoidea; Achatinidae; Achatina.

OX NCBI_TaxID=6530;

RN [1]

RP SEQUENCE.

RC TISSUE=Ganglion;

RX MEDLINE=93265912; PubMed=8495720;
 RA Minakata H., Ikeda T., Muneoka Y., Kobayashi M., Nomoto K.;
 RT "Wwamide-1, -2 and -3: novel neuromodulatory peptides isolated from
 RT ganglia of the African giant snail, Achatina fulica.";
 RL FEBS Lett. 323:104-108(1993).

DR PIR; S33246; S33246.

KW Neuropeptide; Amidation.

FT MOD_RES 7 7 AMIDATION.

SQ SEQUENCE 7 AA; 964 MW; 7362DSB686D32310 CRC64;

Query Match 44.4%; Score 16; DB 1; Length 7;

Best Local Similarity 100.0%; Pred. No. 1.4e+05;

Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 5 WK 6

Db : ||

1 WK 2

RESULT 8

WMA3_ACHFUF

ID WMA3_ACHFUF STANDARD; PRT; 7 AA.

AC P35921;

DT 01-JUN-1994 (Rel. 29, Created)

DT 01-JUN-1994 (Rel. 29, Last sequence update)

DT 01-OCT-1994 (Rel. 30, Last annotation update)

DE Wwamide-3.

OS Achatina fulica (Giant African snail).

OC Eukaryota; Metazoa; Mollusca; Gastropoda; Pulmonata; Stylommatophora;

OC Sigmurethra; Achatinoidea; Achatinidae; Achatina.

OX NCBI_TaxID=6530;

RN [1]

RP SEQUENCE.

RC TISSUE=Ganglion;

RX MEDLINE=93265912; PubMed=8495720;

RA Minakata H., Ikeda T., Muneoka Y., Kobayashi M., Nomoto K.;

RT "Wwamide-1, -2 and -3: novel neuromodulatory peptides isolated from

RT ganglia of the African giant snail, Achatina fulica.";

RL FEBS Lett. 323:104-108(1993).

DR PIR; S33244; S33244.

KW Neuropeptide; Amidation.

FT MOD_RES 7 7 AMIDATION.

SQ SEQUENCE 7 AA; 965 MW; 7362DSB69B132310 CRC64;

Query Match 44.4%; Score 16; DB 1; Length 7;

Best Local Similarity 100.0%; Pred. No. 1.4e+05;

Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 5 WK 6

Db : ||

1 WK 2

RESULT 9

LCK8_LEUMA

ID LCK8_LEUMA STANDARD; PRT; 8 AA.

AC P19990;

DT 01-FEB-1991 (Rel. 17, Created)

DT 01-FEB-1991 (Rel. 17, Last sequence update)

DT 10-OCT-2003 (Rel. 42, Last annotation update)

DE Leucokinin VIII (L-VIII).

OS Leucophaea maderae (Madeira cockroach).

OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;

OC Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blaberoidea;

OC Blaberidae; Leucophaea.

OX NCBI_TaxID=6988;

RN [1]

RP SEQUENCE.

RC TISSUE=Head;

RA Holman G.M., Cook B.J., Nachman R.J.;

RT "Isolation, primary structure and synthesis of leucokinsins VII and

RT VIII: the final members of this new family of cephalomyotropic

RT peptides isolated from head extracts of Leucophaea maderae.";


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RL Comp. Biochem. Physiol. 88C:31-34(1987).
CC -I- FUNCTION: This cephalomyotropic peptide stimulates contractile
CC activity of cockroach proctodeum (hindgut).
CC -I- SUBCELLULAR LOCATION: Secreted.
DR PIR; JS0318; JS0318.
KW Neuropeptide; Amidation.
FT MOD RES 8 8
FT SEQUENCE 8 AA; 902 MW; 736365AB59CAAD08 CRC64;

Query Match 44.4%; Score 16; DB 1; Length 8;
Best Local Similarity 40.0%; Pred. No. 1.4e+05;
Matches 2; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

Qy 1 DHXW 5
Db 3 DFYSW 7

RESULT 10
COW CONVE STANDARD; PRT; 9 AA.
AC P83047;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 15-MAR-2004 (Rel. 43, Last annotation update)
DE Contryphan-Vn.
OS Conus ventricosus (Mollusca: Mollusca; Gastropoda; Orthogastropoda;
OC Apogastropoda; Caenogastropoda; Sorbeoconcha; Hypsogastropoda;
OC Neogastropoda; Conoidea; Conidae; Conus.
OC NCBI_TaxID=117992;
RN [1]
RP SEQUENCE, SYNTHESIS, DISULFIDE BONDS, AND MASS SPECTROMETRY.
RC TISSUE=Venom;
RX MEDLINE=21547785; PubMed=11688995;
RA Massilia G.R., Schinina M.E., Ascenzi P., Pollicelli F.;
RT "Contryphan-Vn: a novel peptide from the venom of the Mediterranean
RL snail Conus ventricosus.";
RN Biochem. Biophys. Res. Commun. 288:908-913(2001).
RN [2]
RP STRUCTURE BY NMR, SYNTHESIS, DISULFIDE BONDS, AND FUNCTION.
RX MEDLINE=22533239; PubMed=12646193;
RA Massilia G.R., Elisseo T., Grolleau F., Lapiet B., Barbier J.,
RA Bournaud R., Molgo J., Cicero D.O., Paci M., Schinina M.E.,
RA Ascenzi P., Pollicelli F.;
RT "Contryphan-Vn: a modulator of Ca2+-dependent K+ channels.";
RL Biochem. Biophys. Res. Commun. 303:238-246(2003).
CC -I- FUNCTION: Affects both voltage-gated and calcium-dependent
CC potassium channel activities, with composite and diversified
CC effects in invertebrate and vertebrate systems.
CC -I- SUBCELLULAR LOCATION: Secreted.
CC -I- TISSUE SPECIFICITY: Expressed by the venom duct.
CC -I- PMW: The cis isomer is the most abundant and is thus thought to be
CC the functionally relevant conformer.
CC -I- MASS SPECTROMETRY: MW=1088.6; METHOD=MALDI.
CC -I- SIMILARITY: Belongs to the contryphan family.
DR PDB; 1XNX; 04-MAR-03.
KW Toxin; Ionic channel inhibitor; Neurotoxin;
KW Potassium channel inhibitor; D-amino acid; Amidation; 3D-structure.
FT DISULFID 3 9
FT MOD RES 5 5 D-TRYPTOPHAN.
FT MOD RES 9 9 AMIDATION.
FT SEQUENCE 9 AA; 1091 MW; 8D38676323676EBA CRC64;

Query Match 44.4%; Score 16; DB 1; Length 9;
Best Local Similarity 100.0%; Pred. No. 1.4e+05;
Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5 WK 6
Db 5 WK 6

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RESULT 11
GON3 PETMA STANDARD; PRT; 10 AA.
AC P30948;
DT 01-JUL-1993 (Rel. 26, Created)
DT 01-JUL-1993 (Rel. 26, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Gonadoliberin III (Gonadotropin-releasing hormone III) (GNRH-III)
DE (Luliberin III).
OS Petromyzon marinus (Sea lamprey).
OS Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Hyperoartia;
OC Petromyzontiformes; Petromyzontidae; Petromyzon.
OC NCBI_TaxID=7757;
RN [1]
RP SEQUENCE.
RC TISSUE=Brain;
RX MEDLINE=93178316; PubMed=8440174;
RA Sower S.A., Chiang Y.-C., Lovas S., Conlon J.M.;
RT "Primary structure and biological activity of a third gonadotropin-
RT releasing hormone from lamprey brain.";
RL Endocrinology 132:1125-1131(1993).
CC -I- FUNCTION: Stimulates the secretion of gonadotropins; it stimulates
CC the secretion of both luteinizing and follicle-stimulating
CC hormones.
CC -I- SUBCELLULAR LOCATION: Secreted.
CC -I- SIMILARITY: Belongs to the GNRH family.
DR InterPro; IPR002012; GNRH.
DR Pfam; PF00446; GNRH; 1.
DR PROSITE; PS00473; GNRH; 1.
KW Hormone; Amidation; Hypothalamus; Pyroglutamate; Pyroglutamic acid.
FT MOD RES 1 1 PYROGLUTAMATE CARBOXYLIC ACID.
FT SEQUENCE 10 AA; 1277 MW; 284B36237AA1F5A3 CRC64;

Query Match 44.4%; Score 16; DB 1; Length 10;
Best Local Similarity 100.0%; Pred. No. 1.8e+03;
Matches 2; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 5 WK 6
Db 7 WK 8

RESULT 12
CHOX ALCSP STANDARD; PRT; 7 AA.
AC P16101;
DT 01-APR-1990 (Rel. 14, Created)
DT 01-APR-1990 (Rel. 14, Last sequence update)
DT 01-APR-1990 (Rel. 14, Last annotation update)
DE Choline oxidase (EC 1.1.3.17) (Fragment).
OS Alcaligenes sp.
OC Bacteria; Proteobacteria; Betaproteobacteria; Burkholderiales;
OC Alcaligenaceae; Alcaligenes.
OC NCBI_TaxID=512;
RN [1]
RP SEQUENCE.
RX MEDLINE=81006769; PubMed=6997283;
RA Ohta-Fukuyama M., Miyake Y., Emi S., Yamano T.;
RT "Identification and properties of the prosthetic group of choline
RT oxidase from Alcaligenes sp.";
RL J. Biochem. 88:197-203(1980).
CC -I- CATALYTIC ACTIVITY: Choline + O(2) = betaine aldehyde + H(2)O(2).
DR PIR; A15398; A15398.
KW Oxidoreductase.
FT NON TER 7
FT SEQUENCE 7 AA; 839 MW; 7415B1E457644ACO CRC64;

Query Match 41.7%; Score 15; DB 1; Length 7;
Best Local Similarity 50.0%; Pred. No. 1.4e+05;
Matches 2; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 1 DHXR 4

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Db          4 NHSR 7          9 AA.
RESULT 13
NSK1_SARBU STANDARD; PRT; 9 AA.
AC P41492;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-FEB-1996 (Rel. 33, Last annotation update)
DE Neosulfakinin-1 (NEB-SK-1).
OS Sarcophaga bullata (Grey flesh fly) (Neobellieria bullata).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC Sarcophagidae; Sarcophaga.
OX NCBI_TaxID=7385;
RN [1]
RP SEQUENCE.
RC TISSUE=Head; PubMed=1360367;
RA Fomagy A., Schoofs L., Proost P., van Damme J., de Loof A.;
RT "Isolation and primary structure of two sulfakinin-like peptides from
RL the fleshfly, Neobellieria bullata."
RL Comp. Biochem. Physiol. 103C:135-142(1992).
CC -!- FUNCTION: Myotropic peptide.
CC -!- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
DR InterPro; IPR001651; Gastrin.
DR PROSITE; PS00259; GASTRIN; 1.
KW Neuropeptide; Amidation; Sulfation.
FT MOD_RES 4 4 SULFATION (POTENTIAL).
FT MOD_RES 9 9 AMIDATION (POTENTIAL).
SQ SEQUENCE 9 AA; 1187 MW; 8B0A0691E86B5AAA CRC64;

Query Match 41.7%; Score 15; DB 1; Length 9;
Best Local Similarity 50.0%; Pred. No. 1.4e+05;
Matches 2; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 2 HXRW 5
Db 6 HMRW 9

RESULT 14
ASGL_AGRAE STANDARD; PRT; 10 AA.
AC P83465;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Aegerolysin (Fragment).
OS Agrocyste aegerita (Black poplar mushroom).
OC Eukaryota; Fungi; Basidiomycota; Hymenomycetes; Homobasidiomycetes;
OC Agaricales; Bolbitiaceae; Agrocyste.
OX NCBI_TaxID=5400;
RN [1]
RP SEQUENCE, FUNCTION, AND SUBUNIT.
RC STRAIN=PAP2 98; TISSUE=Fruiting body;
RX MEDLINE=22015236; PubMed=12020804;
RA Berne S., Krizaj I., Pohleven F., Turk T., Macek P., Sepcic K.;
RT "Pleurotus and Agrocyste hemolysins, new proteins hypothetically
RT involved in fungal fruiting."
RL Biochim. Biophys. Acta 1570:153-159(2002).
CC -!- FUNCTION: Has hemolytic activity against bovine erythrocytes at
CC nanomolar concentrations. May play an important role in the
CC initial phase of fungal fruiting.
CC -!- SUBUNIT: Monomer.
CC -!- SIMILARITY: Belongs to the aegerolysin family.
KW Hemolysis.
FT DOMAIN 7 10 POLY-ILE.
FT NON_TER 10 10
SQ SEQUENCE 10 AA; 1189 MW; DB7D555042D366DD CRC64;

Query Match 41.7%; Score 15; DB 1; Length 10;
Best Local Similarity 25.0%; Pred. No. 2.7e+03;
Matches 1; Conservative 3; Mismatches 0; Indels 0; Gaps 0;

QY 2 HXRW 5
Db 2 YAQW 5

RESULT 15
FARP_LOCMI STANDARD; PRT; 10 AA.
ID FARP_LOCMI
AC P38553;
DT 01-OCT-1994 (Rel. 30, Created)
DT 01-OCT-1994 (Rel. 30, Last sequence update)
DT 30-MAY-2000 (Rel. 39, Last annotation update)
DE SchistocFLRFamide (PDVDFLRF-amide) (Cardioexcitatory neuropeptide).
OS Locusta migratoria (Migratory locust), and
OS Schistocerca gregaria (Desert locust).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Orthopteroidea; Orthoptera; Caelifera; Acridomorpha;
OC Acridoidea; Acrididae; Oedipodinae; Locusta.
OX NCBI_TaxID=7004, 7010;
RN [1]
RP SEQUENCE.
RC SPECIES=L.migratoria; TISSUE=Brain;
RX MEDLINE=93324430; PubMed=7687352;
RA Schoofs L., Holman G.M., Paemen L., Veelaert D., Amelincx M.,
RA de Loof A.;
RT "Isolation, identification, and synthesis of PDVDFLRFamide
RT (SchistocFLRFamide) in Locusta migratoria and its association with the
RT male accessory glands, the salivary glands, the heart, and the
RT oviduct."
RL Peptides 14:409-421(1993).
RN [2]
RP SEQUENCE.
RC SPECIES=S.gregaria; TISSUE=Thoracic nervous system;
RX MEDLINE=89246543; PubMed=2719702;
RA Robb S., Packman L.C., Evans P.D.;
RT "Isolation, primary structure and bioactivity of schistocFLRF-amide, a
RT FMRP-amide-like neuropeptide from the locust, Schistocerca
RT gregaria."
RL Biochem. Biophys. Res. Commun. 160:850-856(1989).
CC -!- FUNCTION: Muscle inhibiting agent. Involved in the neural control
CC of the visceral muscles of the heart, accessory glands and
CC oviduct. May be involved in the regulation of saliva secretion.
CC -!- TISSUE SPECIFICITY: Found in axons of the male accessory glands,
CC the salivary glands, the heart, and the oviduct.
CC -!- SIMILARITY: Belongs to the FARP (FMRPamide related peptide)
CC family.
DR PIR; A32543; A32543.
KW Neuropeptide; Amidation.
FT MOD_RES 10 10
SQ SEQUENCE 10 AA; 1244 MW; D3C51729D2C1EAB2 CRC64;

Query Match 41.7%; Score 15; DB 1; Length 10;
Best Local Similarity 66.7%; Pred. No. 2.7e+03;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 DHX 3
Db 4 DRV 6

RESULT 16
FARP_MYTED STANDARD; PRT; 10 AA.
ID FARP_MYTED
AC P42560;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 30-MAY-2000 (Rel. 39, Last annotation update)
DE FMRPamide-like neuropeptide ALAGDHFFRF-amide.
OS Mytilus edulis (Blue mussel).

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Wed May 19 07:27:48 2004

OC Eukaryota; Metazoa; Mollusca; Bivalvia; Pteriomorpha; Mytiloidea;
 OC Mytiloidea; Mytilidae; Mytilus.
 OX NCBI_TaxID=6550;
 RN [1]
 RP SEQUENCE.
 RX MEDLINE=93047883; PubMed=1358534;
 RA Walker R.J.;
 RT "Neuroactive peptides with an RFamide or Famide carboxyl terminal.";
 RL Comp. Biochem. Physiol. 102C:213-222(1992).
 CC -1- SIMILARITY: Belongs to the FARP (FMRFamide related peptide) family.
 CC PIR; A58365; A58365.
 DR Neuropeptide; Amidation.
 KW MOD RES 10 10 AMIDATION.
 FT MOD RES 10 10
 SQ SEQUENCE 10 AA; 1180 MW; C2F80CC9C1EAA87D CRC64;
 Query Match 41.7%; Score 15; DB 1; Length 10;
 Best Local Similarity 66.7%; Pred. No. 2.7e+03;
 Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 QY 1 DHX 3
 Db 5 DHF 7
 RESULT 17
 GLEM_HUMAN STANDARD; PRT; 10 AA.
 ID P02728;
 AC P02728;
 DT 21-JUL-1986 (Rel. 01, Created)
 DT 21-JUL-1986 (Rel. 01, Last sequence update)
 DT 16-OCT-2001 (Rel. 40, Last annotation update)
 DE Erythrocyte membrane glycoprotein.
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 OX NCBI_TaxID=9606;
 RN [1]
 RP SEQUENCE.
 RX MEDLINE=72034940; PubMed=5286858;
 RA Weiss J.B., Lofe C.J., Bobinski H.;
 RT "New low molecular weight glycopeptide containing triglucoylcysteine in human erythrocyte membrane.";
 RL Nature New Biol. 234:25-26(1971).
 CC -1- PTM: S-linked glycan consists of Glc-Glc-Glc trisaccharide.
 CC -1- MISCELLANEOUS: The identity of the glycoprotein from which this peptide is derived is unknown. No physiological function has been attributed.
 CC PIR; A03187; XGHUE.
 DR Glycoprotein; Erythrocyte.
 KW CARBOHYD 1 1 S-LINKED (GLC. . .).
 FT CARBOHYD 1 1
 SQ SEQUENCE 10 AA; 1049 MW; 239BFEAA1F5B1E8 CRC64;
 Query Match 41.7%; Score 15; DB 1; Length 10;
 Best Local Similarity 66.7%; Pred. No. 2.7e+03;
 Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 QY 1 DHX 3
 Db 7 DHG 9
 RESULT 18
 LCMS_LEUMA STANDARD; PRT; 10 AA.
 ID P21144; P41497;
 AC P21144; P41497;
 DT 01-MAY-1991 (Rel. 18, Created)
 DT 01-FEB-1994 (Rel. 28, Last sequence update)
 DT 10-OCT-2003 (Rel. 42, Last annotation update)
 DE Leucomyosuppressin (LMS) (LeM-MS).
 OC Leucophaea maderae (Madeira cockroach).
 OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
 OC Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blaberoidea;

OC Blaberidae; Leucophaea.
 OX NCBI_TaxID=6988;
 RN [1]
 RP SEQUENCE, AND SYNTHESIS.
 RC TISSUE-Head;
 RA Holman G.M., Cook B.J., Nachman R.J.;
 RT "Isolation, primary structure and synthesis of leucomyosuppressin, an insect neuropeptide that inhibits spontaneous contractions of the cockroach hindgut.";
 RL Comp. Biochem. Physiol. 85C:329-333(1986).
 CC -1- FUNCTION: Inhibits the spontaneous contractions of cockroach protoderm (hindgut).
 CC -1- SUBCELLULAR LOCATION: Secreted.
 KW Neuropeptide; Amidation; Pyrrolidone carboxylic acid.
 FT MOD RES 1 1 PYRROLIDONE CARBOXYLIC ACID.
 FT MOD RES 10 10 AMIDATION.
 SQ SEQUENCE 10 AA; 1275 MW; D3C45229D2C1EAB2 CRC64;
 Query Match 41.7%; Score 15; DB 1; Length 10;
 Best Local Similarity 66.7%; Pred. No. 2.7e+03;
 Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 QY 1 DHX 3
 Db 4 DHV 6
 RESULT 19
 LSK2_LEUMA STANDARD; PRT; 10 AA.
 ID P09039;
 AC P09039;
 DT 01-NOV-1988 (Rel. 09, Created)
 DT 01-FEB-1994 (Rel. 28, Last sequence update)
 DT 28-FEB-2003 (Rel. 41, Last annotation update)
 DE Leucosulfakinin-II (LSK-II).
 OS Leucophaea maderae (Madeira cockroach), and Periplaneta americana (American cockroach).
 OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
 OC Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blaberoidea;
 OC Blaberidae; Leucophaea.
 OX NCBI_TaxID=6988, 6978;
 RN [1]
 RP SEQUENCE.
 RX MEDLINE=87048769; PubMed=3778455;
 RA Nachman R.J., Holman G.M., Cook B.J., Haddon W.F., Ling N.;
 RT "Leucosulfakinin-II, a blocked sulfated insect neuropeptide with homology to cholecystokinin and gastrin.";
 RL Biochem. Biophys. Res. Commun. 140:357-364(1986).
 CC [2]
 CC SEQUENCE.
 CC SPECIES=L.maderae;
 RX MEDLINE=90137190; PubMed=2615921;
 RA Veenstra J.A.;
 RT "Isolation and structure of two gastrin/CK-like neuropeptides from the American cockroach homologous to the leucosulfakinins.";
 RL Neuropeptides 14:145-149(1989).
 CC -1- FUNCTION: CHANGE THE FREQUENCY AND AMPLITUDE OF CONTRACTIONS OF THE COCKROACH HINDGUT. STIMULATES MUSCLE CONTRACTION OF HINDGUT.
 CC -1- SIMILARITY: Belongs to the gastrin/cholecystokinin family.
 DR PIR; A26335; GMROL2.
 DR PIR; B60656; B60656.
 DR InterPro: IPR001651; Gastrin.
 DR PROSITE: PS00259; GASTRIN; 1.
 KW Hormone; Amidation; Sulfation; Pyrrolidone carboxylic acid.
 FT MOD RES 1 1 PYRROLIDONE CARBOXYLIC ACID.
 FT MOD RES 5 5 SULFATION (IN L.MADERAE, BUT NOT IN P.AMERICANA).
 FT MOD RES 10 10 AMIDATION.
 SQ SEQUENCE 10 AA; 1255 MW; 9B4F5391E86B5AAA CRC64;
 Query Match 41.7%; Score 15; DB 1; Length 10;
 Best Local Similarity 50.0%; Pred. No. 2.7e+03;

Matches 2; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 2 HXRW 5
|:|:|
7 HMRF 10

Db

RESULT 20

BPP7 BOTIN STANDARD; PRT; 5 AA.

AC BP0425;
DT 01-APR-1993 (Rel. 25, Created)
DT 01-FEB-1994 (Rel. 28, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Bradykinin-potentiating peptide S5,2 (5A) (Angiotensin-converting enzyme inhibitor).
DE enzyme inhibitor).
OS Bothrops insularis (Island jararaca) (Queimada jararaca).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroides;
OC Viperidae; Crotalinae; Bothrops.
OX NCBI_TaxID=8723;
RN [1]
RP SEQUENCE.

RC TISSUE=Venom;
RX MEDLINE=90351557; PubMed=2386615;
RA Cintra A.C.O., Vieira C.A., Giglio J.R.;
RT "Primary structure and biological activity of bradykinin potentiating peptides from Bothrops insularis snake venom.";
RL J. Proteom. Chem. 9:221-227(1990).
RC Negative factor (F-protein) (27 kDa protein) (3'ORF) (Fragment).
DE Negative factor (F-protein) (27 kDa protein) (3'ORF) (Fragment).
GN NEF.
OS Human immunodeficiency virus type 1 (Z-84 isolate) (HIV-1).
OC Viruses; Retroviral viruses; Retroviridae; Lentivirus.
OX NCBI_TaxID=11681;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=88281278; PubMed=3395517;
RA Yorno J., Josephs S.F., Reitz M.S. Jr., Zagury D., Wong-Staal F., Gallo R.C.;
RT "Nucleotide sequence analysis of the env gene of a new Zairian isolate of HIV-1.";
RL AIDS Res. Hum. Retroviruses 4:165-173(1988).
CC AIDS Res. Hum. Retroviruses 4:165-173(1988).
CC -!- FUNCTION: NEF has GTPase, GTP-binding and autophosphorylating activities. It seems to down-regulate the CD4(14) antigen.
CC -!- MISCELLANEOUS: THE Z-84 ISOLATE WAS TAKEN FROM A 54 YEAR-OLD ZAIREAN MALE.
CC
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CC
CC EMBL; J03653; AAA44687.1; -.
DR HIV; J03653; NEFSJYL.
KW AIDS; Myristate; GTP-binding; Lipoprotein.
FT LIPID 2 2 N-myristoyl glycine (in host) (By similarity).
FT
FT NON TER 9 9
SQ SEQUENCE 9 AA; 967 MW; 319CB325A3733878 CRC64;

Query Match 38.9%; Score 14; DB 1; Length 9;
Best Local Similarity 33.3%; Pred. No. 1.4e+05;
Matches 1; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
|:|:|
1 QKW 3

Db

RESULT 21

FIBB PAFPA STANDARD; PRT; 9 AA.

AC P19343;
DT 01-NOV-1990 (Rel. 16, Created)
DT 01-NOV-1990 (Rel. 16, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE Fibrinogen beta chain [contains: Fibrinopeptide B] (Fragment).
GN FGB.
OS Papio hamadryas (Hamadryas baboon).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecoidea;
OC Cercopithecoidea; Papio.
OX NCBI_TaxID=9557;
RN [1]
RP SEQUENCE.

RC MEDLINE=84161822; PubMed=6423621;
RA Nakamura S., Takenaka O., Takahashi K.;
RT "Fibrinopeptides A and B of baboons (Papio anubis, Papio hamadryas, and Theropithecus gelada): their amino acid sequences and evolutionary rates and a molecular phylogeny for the baboons.";
RT J. Biochem. 94:1973-1978(1983).
RL J. Biochem. 94:1973-1978(1983).
CC -!- FUNCTION: Fibrinogen has a double function: yielding monomers that polymerize into fibrin and acting as a cofactor in platelet aggregation.
CC
CC -!- SUBUNIT: HEXAMER CONTAINING 2 SETS OF 3 NONIDENTICAL CHAINS

CC (ALPHA, BETA AND GAMMA), LINKED TO EACH OTHER BY DISULFIDE BONDS.
CC -!- PTM: Conversion of fibrinogen to fibrin is triggered by thrombin, which cleaves fibrinopeptides A and B from alpha and beta chains, and thus exposes the N-terminal polymerization sites responsible for the formation of the soft clot.
CC
CC PIR; E28854; E28854.
DR Interfero; IPR002181; Fibrinogen C.
DR PROSITE; PS00514; FIBRIN_AG_C_DOMAIN; PARTIAL.
KW BLOOD coagulation; Plasma.
FT PEPTIDE 1 9 FIBRINOPEPTIDE B.
FT NON TER 9 9
SQ SEQUENCE 9 AA; 1057 MW; DDFE71E9C7287B06 CRC64;

Query Match 38.9%; Score 14; DB 1; Length 9;
Best Local Similarity 66.7%; Pred. No. 1.4e+05;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 2 HXR 4
|:|:|
7 HGR 9

Db

RESULT 22

NEF_HV1Z8 STANDARD; PRT; 9 AA.

AC P12481;
DT 01-OCT-1989 (Rel. 12, Created)
DT 01-OCT-1989 (Rel. 12, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE Negative factor (F-protein) (27 kDa protein) (3'ORF) (Fragment).
GN NEF.
OS Human immunodeficiency virus type 1 (Z-84 isolate) (HIV-1).
OC Viruses; Retroviral viruses; Retroviridae; Lentivirus.
OX NCBI_TaxID=11681;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=88281278; PubMed=3395517;
RA Yorno J., Josephs S.F., Reitz M.S. Jr., Zagury D., Wong-Staal F., Gallo R.C.;
RT "Nucleotide sequence analysis of the env gene of a new Zairian isolate of HIV-1.";
RL AIDS Res. Hum. Retroviruses 4:165-173(1988).
CC AIDS Res. Hum. Retroviruses 4:165-173(1988).
CC -!- FUNCTION: NEF has GTPase, GTP-binding and autophosphorylating activities. It seems to down-regulate the CD4(14) antigen.
CC -!- MISCELLANEOUS: THE Z-84 ISOLATE WAS TAKEN FROM A 54 YEAR-OLD ZAIREAN MALE.
CC
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CC
CC EMBL; J03653; AAA44687.1; -.
DR HIV; J03653; NEFSJYL.
KW AIDS; Myristate; GTP-binding; Lipoprotein.
FT LIPID 2 2 N-myristoyl glycine (in host) (By similarity).
FT
FT NON TER 9 9
SQ SEQUENCE 9 AA; 967 MW; 319CB325A3733878 CRC64;

Query Match 38.9%; Score 14; DB 1; Length 9;
Best Local Similarity 33.3%; Pred. No. 1.4e+05;
Matches 1; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
|:|:|
3 GKW 5

Db

RESULT 23

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WWAL ACHFU
ID -WWAL ACHFU STANDARD; PRT; 7 AA.
AC P35919;
DT 01-JUN-1994 (Rel. 29, Created)
DT 01-JUN-1994 (Rel. 29, Last sequence update)
DT 01-OCT-1994 (Rel. 30, Last annotation update)
DT 01-OCT-1994 (Rel. 30, Last annotation update)
DE Wwamide-1.
OS Achatina fulica (Giant African snail).
OC Eukaryota; Metazoa; Mollusca; Gastropoda; Pulmonata; Stylommatophora;
OC Sigmurethra; Achatinoidea; Achatinidae; Achatina.
OC NCB1_TaxID=6530;
OX NCB1_TaxID=6530;
RN [1]
RN SEQUENCE.
RP TISSUE=Ganglion;
RC MEDLINE=93265912; PubMed=8495720;
RX Minakata H., Ikeda T., Muneoka Y., Kobayashi M., Nomoto K.;
RA "Wwamide-1, -2 and -3: novel neuromodulatory peptides isolated from
RT ganglia of the African giant snail, Achatina fulica.";
RL FEBS Lett. 323:104-108(1993).
CC -1- FUNCTION: Exhibits modulatory effects on the peripheral nervous
CC system. Inhibits activity on a central neuron.
CC PIR; S33245; S33245
DR Neuropeptide; Amidation.
FT MOD RES 7
FT SEQUENCE 7 AA; 993 MW; 7362D5B69B041310 CRC64;
SQ SEQUENCE 7 AA; 993 MW; 7362D5B69B041310 CRC64;

Query Match 36.1%; Score 13; DB 1; Length 7;
Best Local Similarity 50.0%; Pred. No. 1.4e+05;
Matches 1; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 5 WK 6
DB 1 WR 2

RESULT 24
PLP BRANA
ID -PLP BRANA STANDARD; PRT; 8 AA.
AC P81707;
DT 15-JUL-1999 (Rel. 38, Created)
DT 15-JUL-1999 (Rel. 38, Last sequence update)
DT 30-MAY-2000 (Rel. 39, Last annotation update)
DE Plastidial lipid-associated protein (Fragment).
OS Brassica napus (Rape).
OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; rosids;
OC eurosids II; Brassicales; Brassicaceae; Brassica.
OC NCB1_TaxID=3708;
OX NCB1_TaxID=3708;
RN [1]
RN SEQUENCE.
RP STRAIN=CV. TOPAZ; TISSUE=Tapetum;
RC MEDLINE=99349136; PubMed=10420651;
RX Hernandez-Pinzon I., Ross J.H.E., Barnes K.A., Damant A.P.,
RA Murphy D.J.;
RT "Composition and role of tapetal lipid bodies in the biogenesis of the
RT pollen coat of Brassica napus.";
RL Planta 208:588-598(1999).
CC -1- FUNCTION: May play a structural role in the elaioplast, a tapetum-
CC specific plastidial lipid organelle.
CC -1- TISSUE SPECIFICITY: Tapetum of anthers.
FT NON_TER 8
FT SEQUENCE 8 AA; 989 MW; 907B1AA452CAA042 CRC64;
SQ SEQUENCE 8 AA; 989 MW; 907B1AA452CAA042 CRC64;

Query Match 36.1%; Score 13; DB 1; Length 8;
Best Local Similarity 25.0%; Pred. No. 1.4e+05;
Matches 1; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 2 HXRW 5
DB 5 NDEW 8

RESULT 25

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LITO LITAU
ID -LITO LITAU STANDARD; PRT; 9 AA.
AC P08945;
DT 01-NOV-1988 (Rel. 09, Created)
DT 01-FEB-1994 (Rel. 28, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE Litorin.
OS Litoria aurea (Green and golden bell frog).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Neobatrachia; Hylidae; Hylidae;
OC Pelodyadinae; Litoria.
OC NCB1_TaxID=8371;
OX NCB1_TaxID=8371;
RN [1]
RN SEQUENCE.
RP TISSUE=Skin secretion;
RC MEDLINE=75187011; PubMed=1140241;
RX Anastasi A., Erspamer V., Eudean R.;
RA "Aminoacid composition and sequence of litorin, a bombesin-like
RT nonapeptide from the skin of the Australian leptodactylid frog
RT Litoria aurea.";
RL Litoria aurea.";
RL Experimentia 31:510-511(1975).
RN [2]
RN SEQUENCE, AND METHYLATION OF GLN-2.
RP TISSUE=Skin secretion;
RC MEDLINE=78003546; PubMed=908397;
RX Anastasi A., Montecucchi P.C., Angelucci F., Erspamer V., Eudean R.;
RA "Glu(OMe)3-litorin, the second bombesin-like peptide occurring in
RT methanol extracts of the skin of the Australian frog Litoria aurea.";
RL Experimentia 33:1289-1289(1977).
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- TISSUE SPECIFICITY: Skin.
CC -1- SIMILARITY: Belongs to the bombesin/neuromedin B/ratanensin
CC family.
CC PIR; S07204; S07204.
DR PIR; S07205; S07205.
DR InterPro; IPR000874; Bombesin.
DR Pfam; PF02044; Bombesin; 1.
DR PROSITE; PS00257; BOMBESIN; 1.
KW Amphibian defense peptide; Bombesin family; Amidation; Methylation;
FT MOD_RES 1 1 PYRROLIDONE CARBOXYLIC ACID.
FT MOD_RES 2 2 DEAMIDATION AND METHYLATION (PARTIAL).
FT MOD_RES 9 9 AMIDATION
FT SEQUENCE 9 AA; 1103 MW; D7CCCLB862CDC366 CRC64;
SQ SEQUENCE 9 AA; 1103 MW; D7CCCLB862CDC366 CRC64;

Query Match 36.1%; Score 13; DB 1; Length 9;
Best Local Similarity 33.3%; Pred. No. 1.4e+05;
Matches 1; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
DB 1 QOW 3

RESULT 26
MP2_MICOC
ID -MP2_MICOC STANDARD; PRT; 10 AA.
AC P81533;
DT 15-JUL-1999 (Rel. 38, Created)
DT 15-JUL-1999 (Rel. 38, Last sequence update)
DT 15-JUL-1999 (Rel. 38, Last annotation update)
DE MP2 protein (Fragment).
OS Microplitis ocellatae (Braconid wasp).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Hymenoptera; Apocrita; Ichneumonidea;
OC Braconidae; Microgasterinae; Microplitis.
OC NCB1_TaxID=99573;
OX NCB1_TaxID=99573;
RN [1]
RN SEQUENCE.
RP TISSUE=Larva;
RC Takahashi M., Quicke D.L.J.;
RA Submitted (OCT-1998) to Swiss-Prot.
RL -1- TISSUE SPECIFICITY: Salivary glands.
CC -1- TISSUE SPECIFICITY: Salivary glands.

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CC -!- DEVELOPMENTAL STAGE: LARVAL.
FT NON TER 10
SQ SEQUENCE 10 AA; 1255 MW; PB4FD93366C41AFA CRC64;

Query Match 36.1%; Score 13; DB 1; Length 10;
Best Local Similarity 33.3%; Pred. No. 6.2e+03;
Matches 1; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 3 XRW 5
   :
   :
Db 5 RQW 7

RESULT 27
NO40 TOBAC
ID NO40 TOBAC STANDARD; PRT; 10 AA.
AC P55962;
DT 01-NOV-1997 (Rel. 35, Created)
DT 01-NOV-1997 (Rel. 35, Last sequence update)
DT 15-DEC-1998 (Rel. 37, Last annotation update)
DE Early nodulin 40 homolog.
GN ENOD40.
OS Nicotiana tabacum (Common tobacco).
OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
OC Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; asterids;
OC lamids; Solanales; Solanaceae; Nicotiana.
OX NCBI_TaxID=4097;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=cv. Petit Havana SRI;
RX MEDLINE=96320417; PubMed=8662527;
RA van de Sande K., Pawlowski K., Czaja I., Wieneke U., Schell J.,
RA Schmidt J., Walden R., Matvienko M., Wellink J., van Kammen A.,
RA Franssen H., Bisseling T.;
RT "Modification of phytohormone response by a peptide encoded by ENOD40
of legumes and a nonlegume.";
RL Science 273:370-373(1996).
CC -!- FUNCTION: Modulates the action of auxin, and may function as plant
growth regulator that alters phytohormone responses.
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or send an email to license@isb-sib.ch).
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DR EMBL; X98716; CAA67267.1; -.
SQ SEQUENCE 10 AA; 1173 MW; 2AB248E05DDB1AB3 CRC64;

Query Match 36.1%; Score 13; DB 1; Length 10;
Best Local Similarity 33.3%; Pred. No. 6.2e+03;
Matches 1; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 3 XRW 5
   :
   :
Db 1 MQW 3

RESULT 28
FAR8 CALVO
ID FAR8 CALVO STANDARD; PRT; 8 AA.
AC P41863;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-NOV-1995 (Rel. 32, Last annotation update)
DE CalliFMRFamide 8.
OS Calliphora vomitoria (Blue blowfly).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC Calliphoridae; Calliphora.

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OX NCBI_TaxID=27454;
RN [1]
RP SEQUENCE.
RC TISSUE=Thoracic ganglion;
RX MEDLINE=92196111; PubMed=1549595;
RA Duve H., Johnsen A.H., Sewell J.C., Scott A.G., Orchard I.,
RA Renfeld J.F., Thorpe A.;
RT "Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH2
neuropeptides (designated calliFMRFamides) from the blowfly
Calliphora vomitoria.";
RL Proc. Natl. Acad. Sci. U.S.A. 89:2326-2330(1992).
CC -!- SIMILARITY: Belongs to the FARP (FMRamide related peptide)
family.
DR PIR; H41978; H41978.
KW Neuropeptide; Amidation.
FT MOD RES 8
SQ SEQUENCE 8 AA; 957 MW; 72D40699CAA44DD8 CRC64;

Query Match 33.3%; Score 12; DB 1; Length 8;
Best Local Similarity 40.0%; Pred. No. 1.4e+05;
Matches 2; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 DHXRW 5
   :
   :
Db 4 DFMRP 8

RESULT 29
HTF1 PERAM
ID HTF1 PERAM STANDARD; PRT; 8 AA.
AC P04548;
DT 13-AUG-1987 (Rel. 05, Created)
DT 01-FEB-1994 (Rel. 28, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE Hyperrethaloaemic factor I (Neuropeptide M-I) (Periplanetin CC-I)
DE (Pea-CAH-I) (LeD-CC-I) (Hyperrethaloaemic neuropeptide I).
OS Periplaneta americana (American cockroach),
OS Leptinotarsa decemlineata (Colorado potato beetle), and
OS Blattella orientalis (Oriental cockroach).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Blattellidae; Periplaneta.
OX NCBI_TaxID=6978, 7539, 6976;
RN [1]
RP SEQUENCE.
RC SPECIES=P.americana;
RX MEDLINE=85046530; PubMed=6548628;
RA Witten J.L., Schaffer M.H., O'Shea M., Cook J.C., Hemling M.E.,
RA Rinehart K.L. Jr.;
RT "Structures of two cockroach neuropeptides assigned by fast atom
bombardment mass spectrometry.";
RL Biochem. Biophys. Res. Commun. 124:350-358(1984).
RN [2]
RP SEQUENCE.
RC SPECIES=P.americana;
RX MEDLINE=84298179; PubMed=6591205;
RA Scarborough R.M., Jamieson G.C., Kalish F., Kramer S.J., McEnroe G.A.,
RA Miller C.A., Schooley D.A.;
RT "Isolation and primary structure of two peptides with
cardioacceleratory and hyperglycemic activity from the corpora
cardiaca of Periplaneta americana.";
RL Proc. Natl. Acad. Sci. U.S.A. 81:5575-5579(1984).
RN [3]
RP SEQUENCE.
RC SPECIES=L.decemlineata; TISSUE=Corpora cardiaca;
RX MEDLINE=90160053; PubMed=2576128;
RA Gaede G., Kellner R.;
RT "The metabolic neuropeptides of the corpus cardiaca from the potato
beetle and the American cockroach are identical.";
RL Peptides 10:1287-1289(1989).
RN [4]
RP SEQUENCE.
RC SPECIES=B.orientalis; TISSUE=Corpora cardiaca;

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RX MEDLINE=90253659; PubMed=2340112;
RA Gaede G., Rinehart K.L. Jr.;
RT "Primary structures of hypertrehalosemic neuropeptides isolated from
the corpora cardiaca of the cockroaches *Leucophaea maderae*,
Gromphadorhina portentosa, *Blattella germanica* and *Blatta orientalis*
and of the stick insect *Extatosoma tiaratum* assigned by tandem fast
atom bombardment mass spectrometry.";
RL Biol. Chem. Hoppe-Seyler 371:345-354(1990).
CC -1- FUNCTION: Hypertrehalosemic factors are neuropeptides that
elevate the level of trehalose in the hemolymph (trehalose is
the major carbohydrate in the hemolymph of insects).
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- SIMILARITY: Belongs to the AKH / HRTH / RPCH family.
DR PIR; A05169; A05169.
DR PIR; A44960; A44960.
DR PIR; A49823; A49823.
DR PIR; S08995; S08995.
DR InterPro; IPR002047; AKH.
DR PROSITE; PS00256; AKH; 1.
FT MOD_RES 1 1 PYRROLIDONE CARBOXYLIC ACID.
FT MOD_RES 8 8 AMIDATION.
SQ SEQUENCE 8 AA; 991 MW; 867457589C452D6 CRC64;
Query Match 33.3%; Score 12; DB 1; Length 8;
Best Local Similarity 33.3%; Pred. No. 1.4e+05;
Matches 1; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
QY 3 XRW 5
Db 6 PNW 8
RESULT 30
HTF2 PERAM
ID HTF2 PERAM STANDARD; PRT; 8 AA.
AC P04549;
DT 13-AUG-1987 (Rel. 05, Created)
DT 01-FEB-1994 (Rel. 28, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE Hypertrehalosemic factor II (Neuropeptide M-II) (Periplanetin CC-2)
DE (PeA-CAH-II) (LeD-CC-II) (Hypertrehalosemic neuropeptide II).
OS Periplaneta americana (American cockroach),
OS Leptinotarsa decemlineata (Colorado potato beetle), and
OS Blatta orientalis (Oriental cockroach).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Orthopteroidea; Dictyoptera; Blattaria; Blattodea;
OC Blattidae; Periplaneta.
OC NCBI_TaxID=6978, 7539, 6976;
[1]
RN NCBI_TaxID=6978, 7539, 6976;
RP SEQUENCE.
RC SPECIES=P.americana;
RX MEDLINE=85046530; PubMed=6548628;
RA Witten J.L., Schaffer M.H., O'Shea M., Cook J.C., Henling M.E.,
RA Rinehart K.L. Jr.;
RT "Structures of two cockroach neuropeptides assigned by fast atom
bombardment mass spectrometry.";
RL Biochem. Biophys. Res. Commun. 124:350-358(1984).
RN [2]
RP SEQUENCE.
RC SPECIES=P.americana;
RX MEDLINE=84298179; PubMed=6591205;
RA Scarborough R.M., Jamieson G.C., Kalish F., Kramer S.J., McEnroe G.A.,
RA Miller C.A., Schooley D.A.;
RT "Isolation and primary structure of two peptides with
cardioacceleratory and hyperglycemic activity from the corpora
cardiaca of *Periplaneta americana*.";
RL Proc. Natl. Acad. Sci. U.S.A. 81:5575-5579(1984).
RN [3]
RP SEQUENCE.
RC SPECIES=L.decemlineata; TISSUE=Corpora cardiaca;
RX MEDLINE=90160053; PubMed=2576128;
RA Gaede G., Kellner R.;

RT "The metabolic neuropeptides of the corpus cardiacum from the potato
beetle and the American cockroach are identical.";
RL Peptides 10:1287-1289(1989).
RN [4]
RP SEQUENCE.
RC SPECIES=B.orientalis; TISSUE=Corpora cardiaca;
RX MEDLINE=90253659; PubMed=2340112;
RA Gaede G., Rinehart K.L. Jr.;
RT "Primary structures of hypertrehalosemic neuropeptides isolated from
the corpora cardiaca of the cockroaches *Leucophaea maderae*,
Gromphadorhina portentosa, *Blattella germanica* and *Blatta orientalis*
and of the stick insect *Extatosoma tiaratum* assigned by tandem fast
atom bombardment mass spectrometry.";
RL Biol. Chem. Hoppe-Seyler 371:345-354(1990).
CC -1- FUNCTION: Hypertrehalosemic factors are neuropeptides that
elevate the level of trehalose in the hemolymph (trehalose is the
major carbohydrate in the hemolymph of insects).
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- SIMILARITY: Belongs to the AKH / HRTH / RPCH family.
DR PIR; B44960; B44960.
DR PIR; B49823; B49823.
DR PIR; S08996; S08996.
DR InterPro; IPR002047; AKH.
DR PROSITE; PS00256; AKH; 1.
KW Neuropeptide; Amidation; Pyrrolidone carboxylic acid.
FT MOD_RES 1 1 PYRROLIDONE CARBOXYLIC ACID.
FT MOD_RES 8 8 AMIDATION.
SQ SEQUENCE 8 AA; 1006 MW; 86745771A9D1A736 CRC64;
Query Match 33.3%; Score 12; DB 1; Length 8;
Best Local Similarity 33.3%; Pred. No. 1.4e+05;
Matches 1; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
QY 3 XRW 5
Db 6 PNW 8
RESULT 31
HTF2 TENMO
ID HTF2 TENMO STANDARD; PRT; 8 AA.
AC P25419;
DT 01-MAY-1992 (Rel. 22, Created)
DT 01-FEB-1994 (Rel. 28, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE Hypertrehalosemic factor (HOTH) (Hypertrehalosemic neuropeptide).
OS Tenebrio molitor (Yellow mealworm), and
OS Zophobas rugipes.
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Coleoptera; Polyphaga; Cucujiformia;
OC Tenebrionidae; Tenebrio.
OC NCBI_TaxID=7067, 7075;
RN [1]
RN NCBI_TaxID=7067, 7075;
RP SEQUENCE.
RC SPECIES=T.molitor, and Z.rugipes;
RX TISSUE=Corpora cardiaca;
RX MEDLINE=90341081; PubMed=2381871;
RA Gaede G., Rosinski G.;
RT "The primary structure of the hypertrehalosemic neuropeptide from
tenebrionid beetles: a novel member of the AKH/RPCH family.";
RL Peptides 11:453-459(1990).
CC -1- FUNCTION: Hypertrehalosemic factors are neuropeptides that
elevate the level of trehalose in the hemolymph (trehalose is the
major carbohydrate in the hemolymph of insects).
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- SIMILARITY: Belongs to the AKH / HRTH / RPCH family.
DR PIR; A43976; A43976.
DR PIR; B43976; B43976.
DR InterPro; IPR002047; AKH.
DR PROSITE; PS00256; AKH; 1.
KW Neuropeptide; Amidation; Pyrrolidone carboxylic acid.
FT MOD_RES 1 1 PYRROLIDONE CARBOXYLIC ACID.
FT MOD_RES 8 8 AMIDATION.

SQ SEQUENCE 8 AA; 1005 MW; 86745775B9C44736 CRC64;

Query Match 33.3%; Score 12; DB 1; Length 8;
Best Local Similarity 33.3%; Pred. No. 1.4e+05;
Matches 1; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 3 XRW 5
| : |
Db 6 PNW 8

RESULT 32
FAR1 CALVO
ID FAR2 CALVO STANDARD; PRT; 9 AA.
AC P41856;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-NOV-1995 (Rel. 32, Last annotation update)
DE CalliFMRFamide 1.
OS Calliphora vomitoria (Blue blowfly).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC Calliphoridae; Calliphora.
OX NCBI_TaxID=27454;
RN [1]
RP SEQUENCE.
RC TISSUE=Thoracic ganglion;
RX MEDLINE=92196111; PubMed=1549595;
RA Duve H., Johnsen A.H., Sewell J.C., Scott A.G., Orchard I.,
RA Rehfeld J.F., Thorpe A.;
RT "Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH2
neuropeptides (designated calliFMRFamides) from the blowfly
Calliphora vomitoria.";
RT Proc. Natl. Acad. Sci. U.S.A. 89:2326-2330(1992).
CC -!- FUNCTION: Able to induce fluid secretion from the isolated
salivary gland of Calliphora
CC -!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
family.
DR PIR; A41978; A41978.
KW Neuropeptide; Amidation.
FT MOD_RES 9
SQ SEQUENCE 9 AA; 1169 MW; 29D00699CAB6C6C7 CRC64;

Query Match 33.3%; Score 12; DB 1; Length 9;
Best Local Similarity 40.0%; Pred. No. 1.4e+05;
Matches 2; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 DXRW 5
| : |
Db 5 DPMRF 9

RESULT 33
FAR2 CALVO
ID FAR2 CALVO STANDARD; PRT; 9 AA.
AC P41857;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-NOV-1995 (Rel. 32, Last annotation update)
DE CalliFMRFamide 2.
OS Calliphora vomitoria (Blue blowfly).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC Calliphoridae; Calliphora.
OX NCBI_TaxID=27454;
RN [1]
RP SEQUENCE.
RC TISSUE=Thoracic ganglion;
RX MEDLINE=92196111; PubMed=1549595;
RA Duve H., Johnsen A.H., Sewell J.C., Scott A.G., Orchard I.,
RA Rehfeld J.F., Thorpe A.;
RT "Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH2
neuropeptides (designated calliFMRFamides) from the blowfly
Calliphora vomitoria.";
RT Proc. Natl. Acad. Sci. U.S.A. 89:2326-2330(1992).
CC -!- FUNCTION: Able to induce fluid secretion from the isolated
salivary gland of Calliphora
CC -!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
family.
DR PIR; A41978; A41978.
KW Neuropeptide; Amidation.
FT MOD_RES 9
SQ SEQUENCE 9 AA; 1169 MW; 29D00699CAB6C6C7 CRC64;

RT Calliphora vomitoria.";
RL Proc. Natl. Acad. Sci. U.S.A. 89:2326-2330(1992).
CC -!- FUNCTION: Able to induce fluid secretion from the isolated
salivary gland of Calliphora.
CC -!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
family.
DR PIR; B41978; B41978.
KW Neuropeptide; Amidation.
FT MOD_RES 9
SQ SEQUENCE 9 AA; 1128 MW; 29D00699CAB6C5A7 CRC64;

Query Match 33.3%; Score 12; DB 1; Length 9;
Best Local Similarity 40.0%; Pred. No. 1.4e+05;
Matches 2; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 DXRW 5
| : |
Db 5 DPMRF 9

RESULT 34
FAR3 CALVO
ID FAR3 CALVO STANDARD; PRT; 9 AA.
AC P41858;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-NOV-1995 (Rel. 32, Last annotation update)
DE CalliFMRFamide 3.
OS Calliphora vomitoria (Blue blowfly).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC Calliphoridae; Calliphora.
OX NCBI_TaxID=27454;
RN [1]
RP SEQUENCE.
RC TISSUE=Thoracic ganglion;
RX MEDLINE=92196111; PubMed=1549595;
RA Duve H., Johnsen A.H., Sewell J.C., Scott A.G., Orchard I.,
RA Rehfeld J.F., Thorpe A.;
RT "Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH2
neuropeptides (designated calliFMRFamides) from the blowfly
Calliphora vomitoria.";
RT Proc. Natl. Acad. Sci. U.S.A. 89:2326-2330(1992).
CC -!- FUNCTION: Able to induce fluid secretion from the isolated
salivary gland of Calliphora.
CC -!- SIMILARITY: Belongs to the FARP (FMRFamide related peptide)
family.
DR PIR; C41978; C41978.
KW Neuropeptide; Amidation.
FT MOD_RES 9
SQ SEQUENCE 9 AA; 1114 MW; 2F0B0699CAB6C5A7 CRC64;

Query Match 33.3%; Score 12; DB 1; Length 9;
Best Local Similarity 40.0%; Pred. No. 1.4e+05;
Matches 2; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 1 DXRW 5
| : |
Db 5 DPMRF 9

RESULT 35
FAR4 CALVO
ID FAR4 CALVO STANDARD; PRT; 9 AA.
AC P41859;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-NOV-1995 (Rel. 32, Last annotation update)
DE CalliFMRFamide 4.
OS Calliphora vomitoria (Blue blowfly).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC Calliphoridae; Calliphora.


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OX NCBI_TaxID=27454;
RN [1]
RP SEQUENCE.
RC TISSUE=Thoracic ganglion;
RX MEDLINE=92196111; PubMed=1549595;
RA Duve H., Johnsen A.H., Sewell J.C., Scott A.G., Orchard I.,
RA Rehfeld J.F., Thorpe A.;
RT "Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH2
RT neuropeptides (designated callifMRPamides) from the blowfly
RT Calliphora vomitoria.";
RL Proc. Natl. Acad. Sci. U.S.A. 89:2326-2330(1992).
CC -1- SIMILARITY: Belongs to the FARP (FMRPamide related peptide)
CC family.
DR PIR; D41978; E41978.
KW Neuropeptide; Amidation.
FT MOD RES 9
SQ SEQUENCE 9 AA; 1182 MW; 31730699CAB6D457 CRC64;

Query Match 33.3%; Score 12; DB 1; Length 9;
Best Local Similarity 40.0%; Pred. No. 1.4e+05;
Matches 2; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 1 DHXRW 5
DB 5 DFMRP 9

RESULT 36
FAR6_CALVO
ID FAR6_CALVO STANDARD; PRT; 9 AA.
AC P41860;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-NOV-1995 (Rel. 32, Last annotation update)
DE CallifMRPamide 5.
OS Calliphora vomitoria (Blue blowfly).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC Calliphoridae; Calliphora.
OX NCBI_TaxID=27454;
RN [1]
RP SEQUENCE.
RC TISSUE=Thoracic ganglion;
RX MEDLINE=92196111; PubMed=1549595;
RA Duve H., Johnsen A.H., Sewell J.C., Scott A.G., Orchard I.,
RA Rehfeld J.F., Thorpe A.;
RT "Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH2
RT neuropeptides (designated callifMRPamides) from the blowfly
RT Calliphora vomitoria.";
RL Proc. Natl. Acad. Sci. U.S.A. 89:2326-2330(1992).
CC -1- SIMILARITY: Belongs to the FARP (FMRPamide related peptide)
CC family.
DR PIR; E41978; E41978.
KW Neuropeptide; Amidation.
FT MOD RES 9
SQ SEQUENCE 9 AA; 1068 MW; 39D10699CAB6D867 CRC64;

Query Match 33.3%; Score 12; DB 1; Length 9;
Best Local Similarity 40.0%; Pred. No. 1.4e+05;
Matches 2; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 1 DHXRW 5
DB 5 DFMRP 9

RESULT 37
FAR6_CALVO
ID FAR6_CALVO STANDARD; PRT; 9 AA.
AC P41861;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-NOV-1995 (Rel. 32, Last annotation update)

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DE CallifMRPamide 6.
OS Calliphora vomitoria (Blue blowfly).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC Calliphoridae; Calliphora.
OX NCBI_TaxID=27454;
RN [1]
RP SEQUENCE.
RC TISSUE=Thoracic ganglion;
RX MEDLINE=92196111; PubMed=1549595;
RA Duve H., Johnsen A.H., Sewell J.C., Scott A.G., Orchard I.,
RA Rehfeld J.F., Thorpe A.;
RT "Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH2
RT neuropeptides (designated callifMRPamides) from the blowfly
RT Calliphora vomitoria.";
RL Proc. Natl. Acad. Sci. U.S.A. 89:2326-2330(1992).
CC -1- SIMILARITY: Belongs to the FARP (FMRPamide related peptide)
CC family.
DR PIR; F41978; F41978.
KW Neuropeptide; Amidation.
FT MOD RES 9
SQ SEQUENCE 9 AA; 1058 MW; 96D10699CAB6D865 CRC64;

Query Match 33.3%; Score 12; DB 1; Length 9;
Best Local Similarity 40.0%; Pred. No. 1.4e+05;
Matches 2; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 1 DHXRW 5
DB 5 DFMRP 9

RESULT 38
FAR7_CALVO
ID FAR7_CALVO STANDARD; PRT; 9 AA.
AC P41862;
DT 01-NOV-1995 (Rel. 32, Created)
DT 01-NOV-1995 (Rel. 32, Last sequence update)
DT 01-NOV-1995 (Rel. 32, Last annotation update)
DE CallifMRPamide 7.
OS Calliphora vomitoria (Blue blowfly).
OC Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha; Oestroidea;
OC Calliphoridae; Calliphora.
OX NCBI_TaxID=27454;
RN [1]
RP SEQUENCE.
RC TISSUE=Thoracic ganglion;
RX MEDLINE=92196111; PubMed=1549595;
RA Duve H., Johnsen A.H., Sewell J.C., Scott A.G., Orchard I.,
RA Rehfeld J.F., Thorpe A.;
RT "Isolation, structure, and activity of -Phe-Met-Arg-Phe-NH2
RT neuropeptides (designated callifMRPamides) from the blowfly
RT Calliphora vomitoria.";
RL Proc. Natl. Acad. Sci. U.S.A. 89:2326-2330(1992).
CC -1- SIMILARITY: Belongs to the FARP (FMRPamide related peptide)
CC family.
DR PIR; G41978; G41978.
KW Neuropeptide; Amidation.
FT MOD RES 9
SQ SEQUENCE 9 AA; 1081 MW; E1D10699CAB6D86A CRC64;

Query Match 33.3%; Score 12; DB 1; Length 9;
Best Local Similarity 40.0%; Pred. No. 1.4e+05;
Matches 2; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 1 DHXRW 5
DB 5 DFMRP 9

RESULT 39
FARA_CALVO

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QY 1 DEXRW 5
DB 5 DMRF 9

RESULT 41
LMP1_L0CMI STANDARD; PRT; 9 AA.
AC P31799;
DT 01-JUL-1993 (Rel. 26, Created)
DT 01-JUL-1993 (Rel. 26, Last sequence update)
DT 01-OCT-1993 (Rel. 27, Last annotation update)
DE Locustamyoinhibiting peptide (L0M-MIP).
OS Locusta migratoria (Migratory locust)..
OS Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Orthopteroidea; Orthoptera; Caelifera; Acridomorpha;
OC Acridoidea; Acrididae; Oedipodinae; Locusta.
ON NCBI_TaxID=7004;
RN [1]
RP SEQUENCE.
RX MEDLINE=92179466; PubMed=1796179;
RX Schoofs L., Holman G.M., Hayes T.K., Nachman R.J., de Loof A.;
RT "Isolation, identification and synthesis of locustamyoinhibiting
RT peptide (L0M-MIP), a novel biologically active neuropeptide from
RT Locusta migratoria."
RL Regul. Pept. 36:111-119(1991).
CC -!- FUNCTION: Suppresses spontaneous contractions of the hindgut and
CC oviduct.
CC -!- TISSUE SPECIFICITY: Neurons located in two ventral cell clusters
CC in the subesophageal ganglion.
DR PIR; A60065; AKLQIM.
KW Amidation; Neuropeptide.
FT MOD RES 9 9
SQ SEQUENCE 9 AA; 1060 MW; 387D7DD4472AB6C3 CRC64;
AMIDATION.

Query Match 33.3%; Score 12; DB 1; Length 9;
Best Local Similarity 50.0%; Pred. No. 1.4e+05;
Matches 1; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 5 WK 6
DB 2 WQ 3

RESULT 42
FTSP_BOMMO STANDARD; PRT; 9 AA.
AC P82003;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Prothoracicostatic peptide (Bom-FTSP)..
OS Bombyx mori (Silk moth).
OS Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia; Bombycoidea;
OC Bombycidae; Bombyx.
ON NCBI_TaxID=7091;
RN [1]
RP SEQUENCE.
RX STRAIN=C145 X N140; TISSUE=Brain;
RX MEDLINE=20002634; PubMed=10531308;
RX Hua Y.-J., Tanaka Y., Nakamura K., Sakakibara M., Nagata S.,
RX Kataoka H.;
RA "Identification of a prothoracicostatic peptide in the larval brain
RT of the silkworm, Bombyx mori."
RL J. Biol. Chem. 274:31169-31173(1999).
RN [2]
RP ERRATUM.
RX Hua Y.-J., Tanaka Y., Nakamura K., Sakakibara M., Nagata S.,
RX Kataoka H.;
RA J. Biol. Chem. 275:9892-9892(2000).
CC -!- FUNCTION: Inhibits ecdysteroid biosynthesis in the prothoracic

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CC gland.
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- DEVELOPMENTAL STAGE: Early fifth instar.
KW Hormone; Amidation.
FT MOD_RES 9 9 AMIDANTION
SQ SEQUENCE 9 AA; 1090 MW; 3878C5B4472AB6C3 CRC64;

Query Match 33.3%; Score 12; DB 1; Length 9;
Best Local Similarity 25.0%; Pred. No. 1.4e+05;
Matches 1; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 2 HXRW 5
   : |
Db 6 NSAW 9

RESULT 43
BPP2_BOTIN STANDARD; PRT; 10 AA.
ID_BPP2_BOTIN STANDARD; PRT; 10 AA.
AC P30422;
DT 01-APR-1993 (Rel. 25, Created)
DT 01-FEB-1994 (Rel. 28, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Bradykinin-potentiating peptide S4,3,1 (10C) (Angiotensin-converting
DE enzyme inhibitor).
OS Bothrops insularis (Island jararaca) (Queimada jararaca).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC Viperidae; Crotalinae; Bothrops.
OX NCBI_TaxID=8723;
RN [1]
RP SEQUENCE.
RC TISSUE=Venom;
RX MEDLINE=90351557; PubMed=2386615;
RA Cintra A.C.O., Vieira C.A., Giglio J.R.;
RT "Primary structure and biological activity of bradykinin potentiating
RT peptides from Bothrops insularis snake venom.";
RL J. Protein Chem. 9:221-227(1990).
CC -1- FUNCTION: This peptide both inhibits the activity of the
CC angiotensin-converting enzyme and enhances the action of
CC bradykinin by inhibiting the kinases that inactivate it.
CC It acts as an indirect hypotensive agent.
DR PIR; H37196;
KW Hypotensive agent; Pyrrolidone carboxylic acid.
FT MOD_RES 1 1 PYRROLIDONE CARBOXYLIC ACID.
SQ SEQUENCE 10 AA; 1213 MW; 30C53546C761F773 CRC64;

Query Match 33.3%; Score 12; DB 1; Length 10;
Best Local Similarity 33.3%; Pred. No. 9.3e+03;
Matches 1; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 3 XRW 5
   : |
Db 1 QNW 3

RESULT 44
BPP2_BOTJA STANDARD; PRT; 10 AA.
ID_BPP2_BOTJA STANDARD; PRT; 10 AA.
AC P01022;
DT 21-JUL-1986 (Rel. 01, Created)
DT 01-FEB-1994 (Rel. 28, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Bradykinin-potentiating peptide 10B (Angiotensin-converting enzyme
DE inhibitor V-6-II).
OS Bothrops jararaca (Jararaca).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC Viperidae; Crotalinae; Bothrops.
OX NCBI_TaxID=8724;
RN [1]
RP SEQUENCE.
RC TISSUE=Venom;

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RX MEDLINE=72118526; PubMed=4334402;
RA Ondetti M.A., Williams N.J., Sabo E.F., Pluscec J., Weaver E.R.,
RA Kocy O.;
RT "Angiotensin-converting enzyme inhibitors from the venom of Bothrops
RT jararaca. Isolation, elucidation of structure, and synthesis.";
RL Biochemistry 10:4033-4039(1971).
CC -1- FUNCTION: This peptide both inhibits the activity of the
CC angiotensin-converting enzyme and enhances the action of
CC bradykinin by inhibiting the kinases that inactivate it.
CC It acts as an indirect hypotensive agent.
DR PIR; A01255; XAVI6B.
KW Hypotensive agent; Pyrrolidone carboxylic acid.
FT MOD_RES 1 1 PYRROLIDONE CARBOXYLIC ACID.
SQ SEQUENCE 10 AA; 1232 MW; 30C53546C7741773 CRC64;

Query Match 33.3%; Score 12; DB 1; Length 10;
Best Local Similarity 33.3%; Pred. No. 9.3e+03;
Matches 1; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 3 XRW 5
   : |
Db 1 QNW 3

RESULT 45
BPP8_BOTIN STANDARD; PRT; 10 AA.
ID_BPP8_BOTIN STANDARD; PRT; 10 AA.
AC P30426;
DT 01-APR-1993 (Rel. 25, Created)
DT 01-FEB-1994 (Rel. 28, Last sequence update)
DT 28-FEB-2003 (Rel. 41, Last annotation update)
DE Bradykinin-potentiating peptide S5,1 (Angiotensin-converting
DE enzyme inhibitor).
OS Bothrops insularis (Island jararaca) (Queimada jararaca).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Scleroglossa; Serpentes; Colubroidea;
OC Viperidae; Crotalinae; Bothrops.
OX NCBI_TaxID=8723;
RN [1]
RP SEQUENCE.
RC TISSUE=Venom;
RX MEDLINE=90351557; PubMed=2386615;
RA Cintra A.C.O., Vieira C.A., Giglio J.R.;
RT "Primary structure and biological activity of bradykinin potentiating
RT peptides from Bothrops insularis snake venom.";
RL J. Protein Chem. 9:221-227(1990).
CC -1- FUNCTION: This peptide both inhibits the activity of the
CC angiotensin-converting enzyme and enhances the action of
CC bradykinin by inhibiting the kinases that inactivate it.
CC It acts as an indirect hypotensive agent.
DR PIR; H37196; H37196.
KW Hypotensive agent; Pyrrolidone carboxylic acid.
FT MOD_RES 1 1 PYRROLIDONE CARBOXYLIC ACID.
SQ SEQUENCE 10 AA; 1173 MW; 2FF835545761F6D8 CRC64;

Query Match 33.3%; Score 12; DB 1; Length 10;
Best Local Similarity 50.0%; Pred. No. 9.3e+03;
Matches 1; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 4 RW 5
   : |
Db 1 QW 2

Search completed: May 18, 2004, 15:57:17
Job time : 12 secs

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: May 18, 2004, 15:49:51 ; Search time 39 Seconds
(without alignments)
48.541 Million cell updates/sec

Title: CLAIM11

Perfect score: 36

Sequence: 1 DHXRWK 6

Scoring table: BLOSUM62DX

Gapop 10.0 , Gapext 0.5

Searched: 1017041 seqs, 315518202 residues

Total number of hits satisfying chosen parameters: 1443

Minimum DB seq length: 0

Maximum DB seq length: 10

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

SPTREMBL 25.*
1: sp_archaea.*
2: sp_bacteria.*
3: sp_fungi.*
4: sp_human.*
5: sp_invertebrate.*
6: sp_mammal.*
7: sp_mhc.*
8: sp_organelle.*
9: sp_phage.*
10: sp_plant.*
11: sp_rodent.*
12: sp_virus.*
13: sp_vertibrate.*
14: sp_unclassified.*
15: sp_rvirus.*
16: sp_bacteriap.*
17: sp_archaeap.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	23	63.9	10	13	O42355 brachydanio
2	20	55.6	10	11	Q9qve8 mus sp. pro
3	19	52.8	10	8	Q94VD2 varanus pan
4	18	50.0	8	8	Q94V82 varanus yuw
5	18	50.0	8	8	Q94D02 terranatos
6	18	50.0	9	2	Q47410 escherichia
7	18	50.0	9	4	Q9CMA0 Q9uma0 homo sapien
8	18	50.0	10	10	Q8GZC8 Q8gzcs hordeum vul
9	17	47.2	8	8	Q94VC1 varanus rud
10	17	47.2	8	8	Q94VF6 varanus job
11	17	47.2	8	8	Q8WGD7 lomus hita
12	17	47.2	8	8	Q94V88 varanus tri
13	17	47.2	8	8	Q94Y22 asterina pe
14	17	47.2	8	8	Q94VJ4 varanus ben
15	17	47.2	8	8	Q94V91 varanus tim
16	17	47.2	8	8	Q94VE4 varanus mel

17	17	47.2	8	8	Q94VB2	Q94vb2 varanus sal
18	17	47.2	8	8	Q94VF9	Q94vf9 varanus ind
19	17	47.2	8	8	Q94VA7	Q94va7 varanus sal
20	17	47.2	8	8	Q94VB5	Q94vb5 varanus sal
21	17	47.2	8	11	O62721	O62721 rattus norv
22	17	47.2	9	8	Q9T688	Q9t688 gecko gecko
23	17	47.2	9	8	Q94VH4	Q94vh4 varanus gla
24	17	47.2	9	8	Q94VD8	Q94vd8 varanus nil
25	17	47.2	9	8	Q8SHF0	Q8shf0 chamaeleo n
26	17	47.2	9	8	Q94V18	Q94v18 varanus ere
27	17	47.2	9	8	Q94V10	Q94v10 varanus gig
28	17	47.2	9	8	Q94VJ1	Q94vj1 varanus dor
29	17	47.2	9	8	Q94VG2	Q94vg2 varanus ind
30	17	47.2	9	8	Q94VC6	Q94vc6 varanus pil
31	17	47.2	9	8	Q8WGB6	Q8wge6 procambarus
32	17	47.2	9	8	Q94VE1	Q94ve1 varanus mer
33	17	47.2	9	9	Q38366	Q38366 bacterioph
34	17	47.2	9	13	Q801K2	Q801k2 antilophia
35	17	47.2	9	13	Q801K1	Q801k1 chiroxiphia
36	17	47.2	9	13	Q801K0	Q801k0 llicura mil
37	17	47.2	10	8	Q9T8F3	Q9t8p3 liolaemus a
38	17	47.2	10	8	Q9B4W1	Q9b4w1 triturus vu
39	17	47.2	10	8	Q8SHB1	Q8shb1 rhampoleon
40	17	47.2	10	8	Q9T8K7	Q9t8k7 liolaemus m
41	17	47.2	10	8	Q9T8N1	Q9t8n1 liolaemus p
42	17	47.2	10	8	C79903	C79903 oplurus cuv
43	17	47.2	10	8	C8WDH0	C8wdh0 anolis limi
44	17	47.2	10	8	Q8W969	Q8w969 anolis orto
45	17	47.2	10	8	Q8SHC6	Q8shc6 furcifer be

ALIGNMENTS

RESULT 1

O42355 PRELIMINARY; PRT; 10 AA.
AC O42355;
DT 01-JAN-1998 (Tremblrel. 05, Created)
DT 01-JAN-1998 (Tremblrel. 05, Last sequence update)
DT 01-OCT-2002 (Tremblrel. 22, Last annotation update)
DE GATA-2 (Fragment).
CN GATA2.
OS Brachydanio rerio (Zebrafish) (Danio rerio).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Osteichthyes; Cypriniformes;
OC Cyprinidae; Danio.
OX NCBI_TaxID=7955;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=9732361; PubMed=9177206;
RA Meng A., Tang H., Ong B.A., Farrell M.J., Lin S.;
RT "Promoter analysis in living embryos identifies a cis-acting motif
required for neuronal expression of GATA-2";
RL Proc. Natl. Acad. Sci. U.S.A. 94:6267-6272(1997).
DR EMBL; AF001220; AAB61711.1; -;
DR ZFIN; ZDB-GENE-980526-260; gata2.
FT NON TER 10
SQ SEQUENCE 10 AA; 1192 MW; C82A2CA6DAADDDC2 CRC64;

Query Match 63.9%; Score 23; DB 13; Length 10;
Best Local Similarity 60.0%; Pred. No. 6.2e+02;
Matches 3; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

OY 1 DHXRW 5
| : : :
Db 6 DQSRW 10

RESULT 2

Q9QVE8 PRELIMINARY; PRT; 10 AA.
ID Q9QVE8
AC Q9QVE8;

DT 01-MAY-2000 (TReMBLrel. 13, Created)
 DT 01-MAY-2000 (TReMBLrel. 13, Last sequence update)
 DT 01-JUN-2002 (TReMBLrel. 21, Last annotation update)
 DE Protamine MP2 intermediate protein PMP2/16 (Fragment).
 OS Mus sp.
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
 OC NCBI_TaxID=10095;
 RN [1]
 RP SEQUENCE.
 RX MEDLINE=92174934; PubMed=1541289;
 RA Chauviere M., Martinage A., Debarle M., Sautiere P., Chevaillier P.;
 RT "Molecular characterization of six intermediate proteins in the
 RT processing of mouse protamine P2 precursor.";
 RL Eur. J. Biochem. 204:759-765(1992).
 FT NON_TER 1 1
 FT NON_TER 10 10
 SQ SEQUENCE 10 AA; 1224 MW; D4050B040B11EAB6 CRC64;
 Query Match 55.6%; Score 20; DB 11; Length 10;
 Best Local Similarity 75.0%; Pred. No. 2.2e+03;
 Matches 3; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
 QY 1 DHXR 4
 Db |||:
 4 DHER 7
 RESULT 3
 Q94VD2 PRELIMINARY; PRT; 10 AA.
 AC Q94VD2;
 DT 01-DEC-2001 (TReMBLrel. 19, Created)
 DT 01-DEC-2001 (TReMBLrel. 19, Last sequence update)
 DT 01-JUN-2003 (TReMBLrel. 24, Last annotation update)
 DE Cytochrome c oxidase subunit I (Fragment).
 GN COI.
 OS Varanus panoptes panoptes.
 OS Mitochondrion.
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
 OC NCBI_TaxID=169849;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA Ast J.C.;
 RT "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
 RL Cladistics 17:0-0(2001).
 DR ENBL; AF407516; AAL10102.1; --
 DR GO; GO:0005739; C:mitochondrion; IEA.
 KW Mitochondrion.
 FT NON_TER 10 10
 SQ SEQUENCE 10 AA; 1299 MW; 5DEE80D4136411A7 CRC64;
 Query Match 52.8%; Score 19; DB 8; Length 10;
 Best Local Similarity 50.0%; Pred. No. 3.4e+03;
 Matches 2; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 QY 3 XRWK 6
 Db |||:
 4 TRWR 7
 RESULT 4
 Q94V82 PRELIMINARY; PRT; 8 AA.
 AC Q94V82;
 DT 01-DEC-2001 (TReMBLrel. 19, Created)
 DT 01-DEC-2001 (TReMBLrel. 19, Last sequence update)
 DT 01-JUN-2003 (TReMBLrel. 24, Last annotation update)
 DE Cytochrome c oxidase subunit I (Fragment).
 GN COI.
 OS Varanus yuwonoi.
 OS Mitochondrion.

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
 OC NCBI_TaxID=169856;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA Ast J.C.;
 RT "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
 RL Cladistics 17:0-0(2001).
 DR ENBL; AF407535; AAL10157.1; --
 DR GO; GO:0005739; C:mitochondrion; IEA.
 KW Mitochondrion.
 FT NON_TER 8 8
 SQ SEQUENCE 8 AA; 1045 MW; EFC775A6C3640056 CRC64;
 Query Match 50.0%; Score 18; DB 8; Length 8;
 Best Local Similarity 50.0%; Pred. No. 1e+06;
 Matches 2; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 QY 3 XRWK 6
 Db |||:
 2 IRWQ 5
 RESULT 5
 Q9TD02 PRELIMINARY; PRT; 8 AA.
 AC Q9TD02;
 DT 01-MAY-2000 (TReMBLrel. 13, Created)
 DT 01-MAY-2000 (TReMBLrel. 13, Last sequence update)
 DT 01-JUN-2003 (TReMBLrel. 24, Last annotation update)
 DE Cytochrome c oxidase subunit I (Fragment).
 OS Terranatos dolichopterus.
 OS Mitochondrion.
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
 OC Acanthomorpha; Acanthopterygii; Percomorpha; Atherinomorpha;
 OC Cyprinodontiformes; Aplocheilidae; Rivulinae; Terranatos.
 OC NCBI_TaxID=61836;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA Hrbek T., Larson A.;
 RT "The evolution of diapause in the killifish family Rivulidae
 RT (Atherinomorpha, Cyprinodontiformes): A molecular phylogenetic and
 RT biogeographic perspective.";
 RL Evolution 53:1200-1216(1999).
 DR ENBL; AF092421; AAF03041.1; --
 DR GO; GO:0005739; C:mitochondrion; IEA.
 KW Mitochondrion.
 FT NON_TER 8 8
 SQ SEQUENCE 8 AA; 1084 MW; F0C9D3640DD44056 CRC64;
 Query Match 50.0%; Score 18; DB 8; Length 8;
 Best Local Similarity 50.0%; Pred. No. 1e+06;
 Matches 2; Conservative 2; Mismatches 0; Indels 0; Gaps 0;
 QY 2 HXRW 5
 Db |||:
 3 NARW 6
 RESULT 6
 Q47410 PRELIMINARY; PRT; 9 AA.
 AC Q47410;
 DT 01-NOV-1996 (TReMBLrel. 01, Created)
 DT 01-NOV-1996 (TReMBLrel. 01, Last sequence update)
 DT 01-OCT-2003 (TReMBLrel. 25, Last annotation update)
 DE Pot. repAX peptide (Fragment).
 OS Escherichia coli.
 OS Plasmid NR1.
 OC Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
 OC Enterobacteriaceae; Escherichia.
 OC NCBI_TaxID=562;

RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN=plasmid NR1;
 RX MEDLINE=85160860; PubMed=2580099;
 RA Womble D.D.; Sampathkumar P.; Easton A.M.; Luckow V.A.; Rownd R.H.;
 RT "Transcription of the replication control region of the IncFII R-
 RL plasmid NR1 in vitro and in vivo.";
 RJ J. Mol. Biol. 181:395-410(1985).
 DR EMBL; X02302; CAA26166.1; -.
 DR PIR; B28378; B28378.
 DR GO; GO:0046821; C:extrachromosomal DNA; IEA.
 KW Plasmid.
 FT NON TER
 SQ SEQUENCE 9 AA; 1055 MW; DCPA6412CDD1B87D CRC64;

Query Match 50.0%; Score 18; DB 2; Length 9;
 Best Local Similarity 50.0%; Pred. No. 1e+06;
 Matches 2; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 3 XRWK 6
 Db :|||
 6 VRWQ 9

RESULT 7

Q9UMA0 PRELIMINARY; PRT; 9 AA.
 ID Q9UMA0
 AC Q9UMA0
 DT 01-MAY-2000 (TRENBLrel. 13, Created)
 DT 01-MAY-2000 (TRENBLrel. 13, Last sequence update)
 DT 01-JUN-2003 (TRENBLrel. 24, Last annotation update)
 DE KIT protein (Fragment).
 GN KIT.
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 OX NCBI_TaxID=9606;
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=94061059; PubMed=7694728;
 RA Spritz R.A.; Holmes S.A.; Berg S.Z.; Nordlund J.J.; Fukui K.;
 RT "A recurrent deletion in the KIT (mast/stem cell growth factor
 RT receptor) proto-oncogene is a frequent cause of human piebaldism.";
 RL Hum. Mol. Genet. 2:1499-1500(1993).
 DR EMBL; S67886; AAD13996.1; -.
 FT NON TER
 SQ SEQUENCE 9 AA; 1182 MW; OBC504032361B5AB CRC64;

Query Match 50.0%; Score 18; DB 4; Length 9;
 Best Local Similarity 40.0%; Pred. No. 1e+06;
 Matches 2; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 2 HXRWK 6
 Db :|||
 2 YSTWK 6

RESULT 8

Q8GZC8 PRELIMINARY; PRT; 10 AA.
 ID Q8GZC8
 AC Q8GZC8
 DT 01-MAR-2003 (TRENBLrel. 23, Created)
 DT 01-MAR-2003 (TRENBLrel. 23, Last sequence update)
 DT 01-MAR-2003 (TRENBLrel. 23, Last annotation update)
 DE MIA13UORF 2a.
 OS Hordeum vulgare (Barley).
 OC Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
 OC Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Poideae;
 OC Triticeae; Hordeum.
 OX NCBI_TaxID=4513;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA Halterman D.A.; Wei F.; Wise R.P.;

RT "Powdery mildew-induced Mla mRNAs are alternatively spliced and
 RT contain multiple upstream open reading frames.";
 RL Plant Physiol. 0:0-0(2003).
 DR EMBL; AF523679; AAO16003.1; -.
 SQ SEQUENCE 10 AA; 1350 MW; 5A473E2440573B53 CRC64;

Query Match 50.0%; Score 18; DB 10; Length 10;
 Best Local Similarity 50.0%; Pred. No. 5.2e+03;
 Matches 2; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

Qy 2 HXRW 5
 Db :|||
 7 NLRW 10

RESULT 9

Q94VCI PRELIMINARY; PRT; 8 AA.
 ID Q94VCI
 AC Q94VCI
 DT 01-DEC-2001 (TRENBLrel. 19, Created)
 DT 01-DEC-2001 (TRENBLrel. 19, Last sequence update)
 DT 01-JUN-2003 (TRENBLrel. 24, Last annotation update)
 DE Cytochrome c oxidase subunit I (Fragment).
 GN COI.
 OS Varanus rudicollis (Rough-necked monitor).
 OG Mitochondrion.
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
 OX NCBI_TaxID=169851;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA Ast J.C.;
 RT "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
 RL Cladistics 17:0-0(2001).
 DR EMBL; AF407521; AAL10116.1; -.
 DR GO; GO:0005739; C:mitochondrion; IEA.
 KW Mitochondrion.
 FT NON TER
 SQ SEQUENCE 8 AA; 1053 MW; FE2729D5A36411A6 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 8;
 Best Local Similarity 66.7%; Pred. No. 1e+06;
 Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 3 XRW 5
 Db :|||
 2 TRW 4

RESULT 10

Q94VF6 PRELIMINARY; PRT; 8 AA.
 ID Q94VF6
 AC Q94VF6
 DT 01-DEC-2001 (TRENBLrel. 19, Created)
 DT 01-DEC-2001 (TRENBLrel. 19, Last sequence update)
 DT 01-JUN-2003 (TRENBLrel. 24, Last annotation update)
 DE Cytochrome c oxidase subunit I (Fragment).
 GN COI.
 OS Varanus jobiensis (Peach throat monitor).
 OG Mitochondrion.
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
 OX NCBI_TaxID=169843;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA Ast J.C.;
 RT "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
 RL Cladistics 17:0-0(2001).
 DR EMBL; AF407507; AAL10075.1; -.
 DR GO; GO:0005739; C:mitochondrion; IEA.
 KW Mitochondrion.
 FT NON TER
 SQ SEQUENCE 8 AA; 1144 MW; EFD729DB436411A6 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 8;
Best Local Similarity 66.7%; Pred. No. 1e+06;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
Db :||
2 TRW 4

RESULT 11

Q8WGD7 ID Q8WGD7 PRELIMINARY; PRT; 8 AA.
AC Q8WGD7
DT 01-MAR-2002 (TReMBLrel. 20, Created)
DT 01-MAR-2002 (TReMBLrel. 20, Last sequence update)
DT 01-JUN-2003 (TReMBLrel. 24, Last annotation update)
DE Cytochrome oxidase subunit 1 (Fragment).
OS Lomis hirta.
OG Mitochondrion.
OC Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Anomura; Lomoidea;
OC Lomidae; Lomis.
OX NCBI_TaxID=177234;
RN [1]
RP SEQUENCE FROM N.A.
RA Morrison C.L., Harvey A.W., Lavery S., Tieu K., Huang Y.,
RA Cunningham C.W.;
RT "Mitochondrial gene rearrangements support a hypothesis of parallel
evolution to the crab-like form."
RL Submitted (OCT-2001) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF436035; AAL31611.1; -.
DR GO; GO:0005739; C:mitochondrion; IEA.
KW Mitochondrion.
FT NON_TER 1 1
FT NON_TER 8 8
SQ SEQUENCE 8 AA; 1038 MW; C5B5B9C733640321 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 8;
Best Local Similarity 66.7%; Pred. No. 1e+06;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
Db :||
2 XRW 4

RESULT 12

Q94V88 ID Q94V88 PRELIMINARY; PRT; 8 AA.
AC Q94V88
DT 01-DEC-2001 (TReMBLrel. 19, Created)
DT 01-DEC-2001 (TReMBLrel. 19, Last sequence update)
DT 01-JUN-2003 (TReMBLrel. 24, Last annotation update)
DE Cytochrome c oxidase subunit I (Fragment).
GN COI.
OS Varanus tristis.
OG Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
OX NCBI_TaxID=62052;
RN [1]
RP SEQUENCE FROM N.A.
RA Ast J.C.;
RT "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RL Cladistics 17:0-0(2001).
DR EMBL; AF407533; AAL10151.1; -.
DR GO; GO:0005739; C:mitochondrion; IEA.
KW Mitochondrion.
FT NON_TER 8 8
SQ SEQUENCE 8 AA; 1041 MW; E8B5B9C7336411A6 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 8;

Best Local Similarity 66.7%; Pred. No. 1e+06;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
Db :||
2 TRW 4

RESULT 13

Q9T4Y2 ID Q9T4Y2 PRELIMINARY; PRT; 8 AA.
AC Q9T4Y2
DT 01-MAY-2000 (TReMBLrel. 13, Created)
DT 01-MAY-2000 (TReMBLrel. 13, Last sequence update)
DT 01-JUN-2003 (TReMBLrel. 24, Last annotation update)
DE COI gene product (Fragment).
OS Asterina pectinifera (Starfish).
OG Mitochondrion.
OC Eukaryota; Metazoa; Echinodermata; Eleutherozoa; Asterozoa;
OC Asteroidea; Valvatacea; Valvatida; Asterinidae; Asterina.
OX NCBI_TaxID=7594;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=83354669; PubMed=2765392;
RA Jacobs H.T., Asakawa S., Araki T., Miura K., Smith M.J., Watanabe K.;
RT "Conserved tRNA gene cluster in starfish mitochondrial DNA."
RL Curr. Genet. 15:193-206(1989).
DR EMBL; X16886; CAA34767.1; -.
DR GO; GO:0005739; C:mitochondrion; IEA.
KW Mitochondrion.
FT NON_TER 8 8
SQ SEQUENCE 8 AA; 1114 MW; F0C9D36415B736D6 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 8;
Best Local Similarity 66.7%; Pred. No. 1e+06;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
Db :||
4 SRW 6

RESULT 14

Q94VJ4 ID Q94VJ4 PRELIMINARY; PRT; 8 AA.
AC Q94VJ4
DT 01-DEC-2001 (TReMBLrel. 19, Created)
DT 01-DEC-2001 (TReMBLrel. 19, Last sequence update)
DT 01-JUN-2003 (TReMBLrel. 24, Last annotation update)
DE Cytochrome c oxidase subunit I (Fragment).
GN COI.
OS Varanus bengalensis nebulosis (Clouded monitor).
OG Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
OX NCBI_TaxID=169827;
RN [1]
RP SEQUENCE FROM N.A.
RA Ast J.C.;
RT "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RL Cladistics 17:0-0(2001).
DR EMBL; AF407492; AAL10031.1; -.
DR GO; GO:0005739; C:mitochondrion; IEA.
KW Mitochondrion.
FT NON_TER 8 8
SQ SEQUENCE 8 AA; 1053 MW; E8B5B9C733640056 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 8;
Best Local Similarity 66.7%; Pred. No. 1e+06;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
Db :||

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Db          2 IRW 4

RESULT 15
Q94V91      PRELIMINARY;      PRT;      8 AA.
AC Q94V91;
DT 01-DEC-2001 (TrEMBLrel. 19, Created)
DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Cytochrome c oxidase subunit I (Fragment).
GN COI.
OS Varanus timorensis (Timor monitor).
OG Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
OX NCBI_TaxID=62053;
RN [1]
RP SEQUENCE FROM N.A.
RA Ast J.C.;
RT "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RL Cladistics 17:0-0(2001).
DR EMBL; AF407532; AAL10148.1; -.
DR GO; GO:0005739; C:mitochondrion; IEA.
KW Mitochondrion.
FT NON TER
SQ SEQUENCE 8 AA; 1041 MW; E8B5B9C7336411A6 CRC64;

Query Match          47.2%; Score 17; DB 8; Length 8;
Best Local Similarity 66.7%; Pred. No. 1e+06;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy          3 XRW 5
Db          2 TRW 4

RESULT 16
Q94VE4      PRELIMINARY;      PRT;      8 AA.
AC Q94VE4;
DT 01-DEC-2001 (TrEMBLrel. 19, Created)
DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Cytochrome c oxidase subunit I (Fragment).
GN COI.
OS Varanus melinus (Quince monitor lizard).
OG Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
OX NCBI_TaxID=169846;
RN [1]
RP SEQUENCE FROM N.A.
RA Ast J.C.;
RT "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RL Cladistics 17:0-0(2001).
DR EMBL; AF407511; AAL10087.1; -.
DR GO; GO:0005739; C:mitochondrion; IEA.
KW Mitochondrion.
FT NON TER
SQ SEQUENCE 8 AA; 1041 MW; E8B5B9C7336411A6 CRC64;

Query Match          47.2%; Score 17; DB 8; Length 8;
Best Local Similarity 66.7%; Pred. No. 1e+06;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy          3 XRW 5
Db          2 TRW 4

RESULT 17
Q94VB2      PRELIMINARY;      PRT;      8 AA.
AC Q94VB2;
DT 01-DEC-2001 (TrEMBLrel. 19, Created)
DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Cytochrome c oxidase subunit I (Fragment).
GN COI.
OS Varanus salvator togianus.
OG Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
OX NCBI_TaxID=169832;
RN [1]
RP SEQUENCE FROM N.A.
RA Ast J.C.;
RT "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RL Cladistics 17:0-0(2001).
DR EMBL; AF407524; AAL10125.1; -.
DR GO; GO:0005739; C:mitochondrion; IEA.
KW Mitochondrion.
FT NON TER
SQ SEQUENCE 8 AA; 992 MW; EFC775A5A36411A6 CRC64;

Query Match          47.2%; Score 17; DB 8; Length 8;
Best Local Similarity 66.7%; Pred. No. 1e+06;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy          3 XRW 5
Db          2 TRW 4

RESULT 18
Q94VF9      PRELIMINARY;      PRT;      8 AA.
AC Q94VF9;
DT 01-DEC-2001 (TrEMBLrel. 19, Created)
DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Cytochrome c oxidase subunit I (Fragment).
GN COI.
OS Varanus indicus (Mangrove monitor).
OG Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
OX NCBI_TaxID=62043;
RN [1]
RP SEQUENCE FROM N.A.
RA Ast J.C.;
RT "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RL Cladistics 17:0-0(2001).
DR EMBL; AF407506; AAL10072.1; -.
DR GO; GO:0005739; C:mitochondrion; IEA.
KW Mitochondrion.
FT NON TER
SQ SEQUENCE 8 AA; 1041 MW; E8B5B9C7336411A6 CRC64;

Query Match          47.2%; Score 17; DB 8; Length 8;
Best Local Similarity 66.7%; Pred. No. 1e+06;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy          3 XRW 5
Db          2 TRW 4

RESULT 19
Q94VA7      PRELIMINARY;      PRT;      8 AA.
AC Q94VA7;
DT 01-DEC-2001 (TrEMBLrel. 19, Created)
DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)

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DE Cytochrome c oxidase subunit I (Fragment).
GN COI.
OS Varanus salvator salvator.
OG Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
OX NCBI_TaxID=169831;
RN [1]
RP SEQUENCE FROM N.A.
RA Ast J.C.;
RT "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RL Cladistics 17:0-0(2001).
DR EMBL; AF407526; AAL10130.1; -.
DR GO; GO:0005739; C:mitochondrion; IEA.
KW Mitochondrion.
FT NON_TER 8
SQ SEQUENCE 8 AA; 992 MW; EFC775A5A36411A6 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 8;
Best Local Similarity 66.7%; Pred. No. 1e+06;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
Db 2 TRW 4

RESULT 20
Q94VB5 PRELIMINARY; PRT; 8 AA.
AC Q94VB5;
DT 01-DEC-2001 (TrEMBLrel. 19, Created)
DT 01-DEC-2001 (TrEMBLrel. 01, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Cytochrome c oxidase subunit I (Fragment).
GN COI.
OS Varanus salvator cumingi.
OG Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
OX NCBI_TaxID=169830;
RN [1]
RP SEQUENCE FROM N.A.
RA Ast J.C.;
RT "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RL Cladistics 17:0-0(2001).
DR EMBL; AF407523; AAL10122.1; -.
DR GO; GO:0005739; C:mitochondrion; IEA.
KW Mitochondrion.
FT NON_TER 8
SQ SEQUENCE 8 AA; 992 MW; EFC775A5A36411A6 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 8;
Best Local Similarity 66.7%; Pred. No. 1e+06;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
Db 2 TRW 4

RESULT 21
Q62721 PRELIMINARY; PRT; 8 AA.
AC Q62721;
DT 01-NOV-1996 (TrEMBLrel. 01, Created)
DT 01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT 01-NOV-1998 (TrEMBLrel. 08, Last annotation update)
DE Prohibitin (Fragment).
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX NCBI_TaxID=10116;

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RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=Fisher;
RX MEDLINE=95331633; PubMed=7607556;
RA Altus M.S., Wood C.M., Stewart D.A., Roskams A.I., Friedman V.,
RA Henderson T., Owens G.A., Danner D.B., Jupe E.R., Dell'Orco R.T.,
RA McClung J.K.;
RT "Regions of evolutionary conservation between the rat and human
RT prohibitin-encoding genes.";
RL Gene 158:291-294(1993).
DR EMBL; U17178; AAA86692.1; -.
FT NON_TER 8
SQ SEQUENCE 8 AA; 1150 MW; EFD3237B05A41376 CRC64;

Query Match 47.2%; Score 17; DB 11; Length 8;
Best Local Similarity 50.0%; Pred. No. 1e+06;
Matches 2; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 3 XRW 6
Db 4 SEWK 7

RESULT 22
Q9T688 PRELIMINARY; PRT; 9 AA.
AC Q9T688;
DT 01-MAY-2000 (TrEMBLrel. 13, Created)
DT 01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Cytochrome c oxidase subunit I (Fragment).
GN COI.
OS Gecko gecko (Tokay gecko).
OG Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Scleroglossa; Gekkota; Gekkonidae; Gekko.
OX NCBI_TaxID=36310;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=99343618; PubMed=10413626;
RA Macey J.R., Wang Y., Ananjeva N.B., Larson A., Papenfuss T.J.;
RT "Vicariant patterns of fragmentation among gekkonid lizards of the
RT genus teratoscincus produced by the indian collision: A molecular
RT phylogenetic perspective and an area cladogram for central asia.";
RL Mol. Phylogenet. Evol. 12:320-332(1999).
DR EMBL; AF114249; RAD51600.1; -.
DR GO; GO:0005739; C:mitochondrion; IEA.
KW Mitochondrion.
FT NON_TER 9
SQ SEQUENCE 9 AA; 1188 MW; 428CB9C9D36411A7 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 9;
Best Local Similarity 66.7%; Pred. No. 1e+06;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
Db 3 TRW 5

RESULT 23
Q94VH4 PRELIMINARY; PRT; 9 AA.
AC Q94VH4;
DT 01-DEC-2001 (TrEMBLrel. 19, Created)
DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Cytochrome c oxidase subunit I (Fragment).
GN COI.
OS Varanus glauerti.
OG Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.

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OX NCBI_TaxID=169841;
RN [1]
RP SEQUENCE FROM N.A.
RA Ast J.C.;
RT "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RL Cladistics 17:0-0(2001).
DR EMBL; AF407500; AAL10054.1; -.
KW GO; GO:0005739; C:mitochondrion; IEA.
FT NON_TER 9
SQ SEQUENCE 9 AA; 1124 MW; 9E80C733640DD731 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 9;
Best Local Similarity 66.7%; Pred. No. 1e+06;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 3 XRW 5
Db 4 ARW 6

RESULT 24
Q94VD8 PRELIMINARY; PRT; 9 AA.
ID Q94VD8
AC Q94VD8
DT 01-DEC-2001 (TrEMBLrel. 19, Created)
DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Cytochrome c oxidase subunit I (Fragment).
GN COI.
OS Varanus niloticus (Nile monitor).
OC Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
OX NCBI_TaxID=62046;
RN [1]
RP SEQUENCE FROM N.A.
RA Ast J.C.;
RT "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RL Cladistics 17:0-0(2001).
DR EMBL; AF407514; AAL10096.1; -.
KW GO; GO:0005739; C:mitochondrion; IEA.
FT NON_TER 9
SQ SEQUENCE 9 AA; 1154 MW; 9E80C7336411A731 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 9;
Best Local Similarity 66.7%; Pred. No. 1e+06;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 3 XRW 5
Db 4 TRW 6

RESULT 25
Q8SHF0 PRELIMINARY; PRT; 9 AA.
ID Q8SHF0
AC Q8SHF0
DT 01-JUN-2002 (TrEMBLrel. 21, Created)
DT 01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
DT 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE Cytochrome c oxidase subunit I (Fragment).
GN COI.
OS Chamaeleo namaquensis (Namaqua chameleon).
OC Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Iguania; Acrodonta; Chamaeleonidae; Chamaeleo.
OX NCBI_TaxID=179917;
RN [1]
RP SEQUENCE FROM N.A.
RA Townsend T.M., Larson A.L.;
RT "Molecular Phylogenetics and Mitochondrial Genomic Evolution in the

RT Chamaeleonidae (Reptilia, Squamata).";
RL Submitted (NOV-2001) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF448757; AAL90553.1; -.
KW GO; GO:0005739; C:mitochondrion; IEA.
FT NON_TER 9
SQ SEQUENCE 9 AA; 1205 MW; 358CB72733640733 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 9;
Best Local Similarity 66.7%; Pred. No. 1e+06;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 3 XRW 5
Db 3 LRW 5

RESULT 26
Q94VI8 PRELIMINARY; PRT; 9 AA.
ID Q94VI8
AC Q94VI8
DT 01-DEC-2001 (TrEMBLrel. 19, Created)
DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Cytochrome c oxidase subunit I (Fragment).
GN COI.
OS Varanus eremius.
OC Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
OX NCBI_TaxID=62040;
RN [1]
RP SEQUENCE FROM N.A.
RA Ast J.C.;
RT "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RL Cladistics 17:0-0(2001).
DR EMBL; AF407495; AAL10040.1; -.
KW GO; GO:0005739; C:mitochondrion; IEA.
FT NON_TER 9
SQ SEQUENCE 9 AA; 1124 MW; 9E80C733640DD731 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 9;
Best Local Similarity 66.7%; Pred. No. 1e+06;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 3 XRW 5
Db 4 ARW 6

RESULT 27
Q94VIO PRELIMINARY; PRT; 9 AA.
ID Q94VIO
AC Q94VIO
DT 01-DEC-2001 (TrEMBLrel. 19, Created)
DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Cytochrome c oxidase subunit I (Fragment).
GN COI.
OS Varanus giganteus (Perentie).
OC Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
OX NCBI_TaxID=62041;
RN [1]
RP SEQUENCE FROM N.A.
RA Ast J.C.;
RT "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RL Cladistics 17:0-0(2001).
DR EMBL; AF407498; AAL10048.1; -.
KW GO; GO:0005739; C:mitochondrion; IEA.
FT NON_TER 9

```

FT NON TER 9 9 1138 MW; 9C4CB7336411A9D1 CRC64;
SQ SEQUENCE 9 AA; 1138 MW; 9C4CB7336411A9D1 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 9;
Best Local Similarity 66.7%; Pred. No. 1e+06;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
Db :|||
4 TRW 6

RESULT 28
Q94VJ1 PRELIMINARY; PRT; 9 AA.
AC Q94VJ1 PRELIMINARY; PRT; 9 AA.
DT 01-DEC-2001 (TrEMBLrel. 19, Created)
DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Cytochrome c oxidase subunit I (Fragment).
GN COI.
OS Varanus doreanus.
OG Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
CX NCBI_TaxID=169836;
RN [1]
RP SEQUENCE FROM N.A.
RA Ast J.C.;
RT "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RL Cladistics 17:0-0(2001).
DR EMBL; AF407493; AAL10034.1; -.
DR GO; GO:0005739; C:mitochondrion; IEA.
KW Mitochondrion.
FT NON TER 9
SQ SEQUENCE 9 AA; 1155 MW; 8F68B5B9C7336411 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 9;
Best Local Similarity 66.7%; Pred. No. 1e+06;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
Db :|||
2 TRW 4

RESULT 29
Q94VG2 PRELIMINARY; PRT; 9 AA.
AC Q94VG2 PRELIMINARY; PRT; 9 AA.
DT 01-DEC-2001 (TrEMBLrel. 19, Created)
DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Cytochrome c oxidase subunit I (Fragment).
GN COI.
OS Varanus indicus (Mangrove monitor).
OG Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
CX NCBI_TaxID=62043;
RN [1]
RP SEQUENCE FROM N.A.
RA Ast J.C.;
RT "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RL Cladistics 17:0-0(2001).
DR EMBL; AF407505; AAL10089.1; -.
DR GO; GO:0005739; C:mitochondrion; IEA.
KW Mitochondrion.
FT NON TER 9
SQ SEQUENCE 9 AA; 1258 MW; 881259C727336411 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 9;
Best Local Similarity 66.7%; Pred. No. 1e+06;

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Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
Db :|||
2 TRW 4

RESULT 30
Q94VC6 PRELIMINARY; PRT; 9 AA.
ID Q94VC6 PRELIMINARY; PRT; 9 AA.
AC Q94VC6 PRELIMINARY; PRT; 9 AA.
DT 01-DEC-2001 (TrEMBLrel. 19, Created)
DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Cytochrome c oxidase subunit I (Fragment).
GN COI.
OS Varanus pilbarensis.
OG Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Scleroglossa; Anguimorpha; Varanidae; Varanus.
CX NCBI_TaxID=62048;
RN [1]
RP SEQUENCE FROM N.A.
RA Ast J.C.;
RT "Mitochondrial DNA evidence and evolution in Varanoidea (Squamata).";
RL Cladistics 17:0-0(2001).
DR EMBL; AF407518; AAL10108.1; -.
DR GO; GO:0005739; C:mitochondrion; IEA.
KW Mitochondrion.
FT NON TER 9
SQ SEQUENCE 9 AA; 1064 MW; 874CA5A36411A735 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 9;
Best Local Similarity 66.7%; Pred. No. 1e+06;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
Db :|||
4 TRW 6

RESULT 31
Q8WGE6 PRELIMINARY; PRT; 9 AA.
ID Q8WGE6 PRELIMINARY; PRT; 9 AA.
AC Q8WGE6 PRELIMINARY; PRT; 9 AA.
DT 01-MAR-2002 (TrEMBLrel. 20, Created)
DT 01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Cytochrome oxidase subunit 1 (Fragment).
OS Procamburus clarkii (Red swamp crayfish).
OG Mitochondrion.
OC Eukaryota; Metazoa; Arthropoda; Crustacea; Malacostraca;
OC Eumalacostraca; Eucarida; Decapoda; Pleocyemata; Astacidea;
OC Astacidea; Cambaridae; Procamburus.
CX NCBI_TaxID=6728;
RN [1]
RP SEQUENCE FROM N.A.
RA Morrison C.L.; Harvey A.W.; Lavery S.; Tieu K.; Huang Y.;
RA Cunningham C.W.;
RT "Mitochondrial gene rearrangements support a hypothesis of parallel
RT evolution to the crab-like form.";
RL Submitted (OCT-2001) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF436024; AAL31599.1; -.
DR GO; GO:0005739; C:mitochondrion; IEA.
KW Mitochondrion.
FT NON TER 1
FT NON TER 9
SQ SEQUENCE 9 AA; 1185 MW; 936BB9C733640321 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 9;
Best Local Similarity 66.7%; Pred. No. 1e+06;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

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AC	Q801K2;
AD	01-JUN-2003 (TReMBLrel. 24, Created)
AE	01-JUN-2003 (TReMBLrel. 24, Last sequence update)
AF	01-JUN-2003 (TReMBLrel. 24, Last annotation update)
AG	Beta fibrinogen (Fragment).
AH	BETA FIBRINOGEN.
AI	Antilophia galeata (helmeted manakin).
AJ	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
AK	Archoosauria; Aves; Neognathae; Passeriformes; Tyrannidae; Antilophia.
AL	NCBI_TaxID=208054;
AM	[1]
AN	SEQUENCE FROM N.A.
AO	Marini M.A., Hackett S.J.;
AP	"A Multifaceted Approach to the Characterization of an Intergeneric
AQ	Hybrid Manakin (Pipridae) from Brazil."
AR	Auk 119:1114-1120(2002).
AS	EMBL; AV136615; AAN16892.1; -.
AT	NON_TER 1 1
AV	FT NON_TER 9 9
AW	SQ SEQUENCE 9 AA; 992 MW; 8620B378744AB1 CRC64;
AX	Query Match 47.2%; Score 17; DB 13; Length 9;
AY	Best Local Similarity 40.0%; Pred. No. 1e+06; 1; Indels 0; Gaps 0;
AZ	Matches 2; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
BA	QY 1 DHXRW 5
BB	:::
BC	3 DNGGW 7
BD	RESULT 35
BE	Q801K1 PRELIMINARY; PRT; 9 AA.
BF	ID Q801K1 AC Q801K1;
BG	AD 01-JUN-2003 (TReMBLrel. 24, Created)
BH	AE 01-JUN-2003 (TReMBLrel. 24, Last sequence update)
BI	AF 01-JUN-2003 (TReMBLrel. 24, Last annotation update)
BJ	Beta fibrinogen (Fragment).
BK	BETA FIBRINOGEN.
BL	Chiroxiphia caudata.
BM	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
BN	Archoosauria; Aves; Neognathae; Passeriformes; Pipridae; Chiroxiphia.
BO	NCBI_TaxID=196027;
BP	[1]
BQ	SEQUENCE FROM N.A.
BR	Marini M.A., Hackett S.J.;
BS	"A Multifaceted Approach to the Characterization of an Intergeneric
BT	Hybrid Manakin (Pipridae) from Brazil."
BU	Auk 119:1114-1120(2002).
BV	EMBL; AV136616; AAN16893.1; -.
BW	NON_TER 1 1
BX	FT NON_TER 9 9
BY	SQ SEQUENCE 9 AA; 992 MW; 8620B378744AB1 CRC64;
BZ	Query Match 47.2%; Score 17; DB 13; Length 9;
CA	Best Local Similarity 40.0%; Pred. No. 1e+06; 1; Indels 0; Gaps 0;
CB	Matches 2; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
CC	QY 1 DHXRW 5
CD	:::
CE	3 DNGGW 7
CF	RESULT 36
CG	Q801KO PRELIMINARY; PRT; 9 AA.
CH	ID Q801KO AC Q801KO;
CI	AD 01-JUN-2003 (TReMBLrel. 24, Created)
CJ	AE 01-JUN-2003 (TReMBLrel. 24, Last sequence update)
CK	AF 01-JUN-2003 (TReMBLrel. 24, Last annotation update)
CL	Beta fibrinogen (Fragment).
CM	BETA FIBRINOGEN.
CN	Ilicura militaris (pin-tailed manakin).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Archosauria; Aves; Neognathae; Passeriformes; Tyrannidae; Ilicura.
OX NCBI_TaxID=208056;
RN [1]
RP SEQUENCE FROM N.A.
RA Marini M.A., Hackett S.J.;
RT "A Multifaceted Approach to the Characterization of an Intergeneric
RT Hybrid Manakin (Pipridae) from Brazil."
RL Auk 119:1114-1120(2002).
DR EMBL; AY136617; AAN16894.1; -.
FT NON TER 1
FT NON TER 9
SQ SEQUENCE 9 AA; 992 MW; 8620B37878744AB1 CRC64;

Query Match 47.2%; Score 17; DB 13; Length 9;

Best Local Similarity 40.0%; Pred. No. 1e+06; 1; Indels 0; Gaps 0;
Matches 2; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 1 DHXRW 5
Db 3 DNGW 7

RESULT 37

Q9T8P3
ID Q9T8P3 PRELIMINARY; PRT; 10 AA.
AC Q9T8P3;
DT 01-MAY-2000 (TrEMBLrel. 13, Created)
DT 01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Cytochrome c oxidase subunit I (Fragment).
GN COI.
OS Liolaemus andinus.
OG Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Iguania; Liolaemidae; Liolaemus.
OX NCBI_TaxID=109394;
RN [1]
RP SEQUENCE FROM N.A.
RA Schulte J.A. II, Macey J.R., Espinoza R.E., Larson A.;
RT "Phylogenetic relationships in the iguanid lizard Genus Liolaemus:
RT Multiple origins of viviparous reproduction and evidence for recurring
RT Andean vicariance and dispersal."
RL Biol. J. Linn. Soc. 69:75-102(2000).
DR EMBL; AF099245; AAF18941.1; -.
DR GO; GO:0005739; C:mitochondrion; IEA.
KW Mitochondrion.
FT NON TER 10
FT NON TER 10
SQ SEQUENCE 10 AA; 1254 MW; 1A3580C733640440 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 10;

Best Local Similarity 66.7%; Pred. No. 7.9e+03;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
Db 4 NRW 6

RESULT 38

Q9B4W1
ID Q9B4W1 PRELIMINARY; PRT; 10 AA.
AC Q9B4W1;
DT 01-JUN-2001 (TrEMBLrel. 17, Created)
DT 01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Cytochrome c oxidase subunit I (Fragment).
GN COI.
OS Triturus vulgaris (Smooth newt).
OG Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Caudata; Salamandroidea; Salamandridae; Triturus.
OX NCBI_TaxID=8324;

RN SEQUENCE FROM N.A.
RX MEDLINE=21175761; PubMed=11277635;
RA Weisrock D.W., Macey J.R., Ugurtas I.H., Larson A., Papenfuss T.J.;
RT "Molecular Phylogenetics and Historical Biogeography among
RT Salamandrids of the 'True' Salamander Clade: Rapid Branching of
RT Numerous Highly Divergent Lineages in Mertensiella luschni Associated
RT with the Rise of Anatolia."
RL Mol. Phylogenet. Evol. 18:434-448(2001).
DR EMBL; AF296619; AAK30314.1; -.
DR GO; GO:0005739; C:mitochondrion; IEA.
KW Mitochondrion.
FT NON TER 10
FT NON TER 10
SQ SEQUENCE 10 AA; 1286 MW; 03D380C7336411A0 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 10;

Best Local Similarity 66.7%; Pred. No. 7.9e+03;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
Db 4 TRW 6

RESULT 39

Q8SHB1
ID Q8SHB1 PRELIMINARY; PRT; 10 AA.
AC Q8SHB1;
DT 01-JUN-2002 (TrEMBLrel. 21, Created)
DT 01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
DT 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE Cytochrome c oxidase subunit I (Fragment).
GN COI.
OS Rhampholeon brevicaudatus (Bearded pygmy chameleon).
OG Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Iguania; Acrodonta; Chamaeleonidae;
OC Rhampholeon.
OX NCBI_TaxID=91912;
RN [1]
RP SEQUENCE FROM N.A.
RA Townsend T.M., Larson A.L.;
RT "Molecular Phylogenetics and Mitochondrial Genomic Evolution in the
RT Chamaeleonidae (Reptilia, Squamata)."
RL Submitted (NOV-2001) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF448771; AAL90595.1; -.
DR GO; GO:0005739; C:mitochondrion; IEA.
KW Mitochondrion.
FT NON TER 10
FT NON TER 10
SQ SEQUENCE 10 AA; 1291 MW; 86218E2733641771 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 10;

Best Local Similarity 66.7%; Pred. No. 7.9e+03;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
Db 4 PRW 6

RESULT 40

Q9T8K7
ID Q9T8K7 PRELIMINARY; PRT; 10 AA.
AC Q9T8K7;
DT 01-MAY-2000 (TrEMBLrel. 13, Created)
DT 01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Cytochrome c oxidase subunit I (Fragment).
GN COI.
OS Liolaemus multimaclulatus.
OG Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Iguania; Liolaemidae; Liolaemus.

```
OX NCBI_TaxID=109426;
RN [1]
RP SEQUENCE FROM N.A.
RA Schulte J.A. II, Macey J.R., Espinoza R.E., Larson A.;
RT "phylogenetic relationships in the iguanid lizard genus Liolaemus:
RT Multiple origins of viviparous reproduction and evidence for recurring
RT Andean vicariance and dispersal.";
RL Biol. J. Linn. Soc. 69:75-102(2000).
DR EMBL; AF099257; AAF18877.1; -.
DR GO; GO:0005739; C:mitochondrion; IEA.
KW Mitochondrion.
FT NON_TER 10 10
SQ SEQUENCE 10 AA; 1288 MW; 1A3580C9D3640440 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 10;
Best Local Similarity 66.7%; Pred. No. 7.9e+03;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
Db :||
4 NRW 6

RESULT 41
Q8T8N1
ID Q9T8N1 PRELIMINARY; PRT; 10 AA.
AC Q9T8N1;
DT 01-MAY-2000 (TREMBLrel. 13, Created)
DT 01-MAY-2000 (TREMBLrel. 13, Last sequence update)
DT 01-JUN-2003 (TREMBLrel. 24, Last annotation update)
DE Cytochrome c oxidase subunit I (Fragment).
GN COI.
OS Liolaemus poecilochromis.
OG Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Iguania; Liolaemidae; Liolaemus.
OX NCBI_TaxID=109432;
RN [1]
RP SEQUENCE FROM N.A.
RA Schulte J.A. II, Macey J.R., Espinoza R.E., Larson A.;
RT "phylogenetic relationships in the iguanid lizard genus Liolaemus:
RT Multiple origins of viviparous reproduction and evidence for recurring
RT Andean vicariance and dispersal.";
RL Biol. J. Linn. Soc. 69:75-102(2000).
DR EMBL; AF099249; AAF18853.1; -.
DR GO; GO:0005739; C:mitochondrion; IEA.
KW Mitochondrion.
FT NON_TER 10 10
SQ SEQUENCE 10 AA; 1288 MW; 1A3580C9D3640440 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 10;
Best Local Similarity 66.7%; Pred. No. 7.9e+03;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
Db :||
4 NRW 6

RESULT 42
Q79903
ID Q79903 PRELIMINARY; PRT; 10 AA.
AC Q79903;
DT 01-NOV-1998 (TREMBLrel. 08, Created)
DT 01-NOV-1998 (TREMBLrel. 08, Last sequence update)
DT 01-JUN-2003 (TREMBLrel. 24, Last annotation update)
DE Cytochrome c oxidase subunit I (Fragment).
GN COI.
OS Oplurus cuvieri (Madagascan collared iguanid lizard).
OG Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Iguania; Oplurinae; Oplurus.
```

```
OX NCBI_TaxID=44151;
RN [1]
RP SEQUENCE FROM N.A.
RA Macey J.R., Larson A., Ananjeva N.B., Papenfuss T.J.;
RT "Evolutionary shifts in three major structural features of the
RT mitochondrial genome among iguanian lizards.";
RL J. Mol. Evol. 44:660-674(1997).
DR EMBL; U82685; AAC62293.1; -.
DR PIR; T17066; T17066.
DR GO; GO:0005739; C:mitochondrion; IEA.
KW Mitochondrion.
FT NON_TER 10 10
SQ SEQUENCE 10 AA; 1349 MW; 0A3480C9D3640440 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 10;
Best Local Similarity 66.7%; Pred. No. 7.9e+03;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
Db :||
4 NRW 6

RESULT 43
Q8WDH0
ID Q8WDH0 PRELIMINARY; PRT; 10 AA.
AC Q8WDH0;
DT 01-MAR-2002 (TREMBLrel. 20, Created)
DT 01-MAR-2002 (TREMBLrel. 20, Last sequence update)
DT 01-JUN-2003 (TREMBLrel. 24, Last annotation update)
DE Cytochrome oxidase subunit 1 (Fragment).
GN COI.
OS Anolis limifrons.
OG Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae; Anolis.
OX NCBI_TaxID=38897;
RN [1]
RP SEQUENCE FROM N.A.
RA Glor R.E., Vitt L.J., Larson A.;
RL Submitted (JAN-2001) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF337783; AAL72049.1; -.
DR GO; GO:0005739; C:mitochondrion; IEA.
KW Mitochondrion.
FT NON_TER 10 10
SQ SEQUENCE 10 AA; 1315 MW; 0A3480C73640440 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 10;
Best Local Similarity 66.7%; Pred. No. 7.9e+03;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 XRW 5
Db :||
4 NRW 6

RESULT 44
Q8W969
ID Q8W969 PRELIMINARY; PRT; 10 AA.
AC Q8W969;
DT 01-MAR-2002 (TREMBLrel. 20, Created)
DT 01-MAR-2002 (TREMBLrel. 20, Last sequence update)
DT 01-JUN-2003 (TREMBLrel. 24, Last annotation update)
DE Cytochrome oxidase subunit 1 (Fragment).
GN COI.
OS Anolis ortonii (Bark anole).
OG Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae; Anolis.
OX NCBI_TaxID=44141;
RN [1]
RP SEQUENCE FROM N.A.
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Wed May 19 07:27:49 2004

RA Glor R.E., Vitt L.J., Larson A.;
RL Submitted (JAN-2001) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF337793; AAL72069.1; -;
DR EMBL; AF337794; AAL72071.1; -;
DR EMBL; AF337795; AAL72073.1; -;
DR EMBL; AF337796; AAL72075.1; -;
DR EMBL; AF337797; AAL72077.1; -;
DR EMBL; AF337798; AAL72079.1; -;
DR EMBL; AF337799; AAL72081.1; -;
DR GO; GO:0005739; C:mitochondrion; IEA.
KW Mitochondrion.
FT NON_TER 10 10
SQ SEQUENCE 10 AA; 1349 MW; 0A3480C9D3640440 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 10;
Best Local Similarity 66.7%; Pred. No. 7.9e+03;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 3 XRW 5
Db 4 NRW 6

RESULT 45
Q8SHC6 PRELIMINARY; PRT; 10 AA.
AC Q8SHC6;
DT 01-JUN-2002 (TrEMBLrel. 21, Created)
DT 01-JUN-2002 (TrEMBLrel. 21, Last sequence update)
DT 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE Cytochrome c oxidase subunit I (Fragment).
GN COI.
OS Furcifer belalandaensis (Chameleón).
OG Mitochondrion.
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Lepidodonta; Squamata; Iguania; Acrodonta; Chamaeleonidae; Furcifer.
CX NCBI_TaxID=179924;
RN [1]
RP SEQUENCE FROM N.A.
RA Townsend T.M., Larson A.L.;
RT "Molecular Phylogenetics and Mitochondrial Genomic Evolution in the
RT Chamaeleonidae (Reptilia, Squamata).";
RL Submitted (NOV-2001) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF448765; AAL90577.1; -;
DR GO; GO:0005739; C:mitochondrion; IEA.
KW Mitochondrion.
FT NON_TER 10 10
SQ SEQUENCE 10 AA; 1295 MW; 86218E27336411B1 CRC64;

Query Match 47.2%; Score 17; DB 8; Length 10;
Best Local Similarity 66.7%; Pred. No. 7.9e+03;
Matches 2; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 3 XRW 5
Db 4 TRW 6

Search completed: May 18, 2004, 15:56:21
Job time : 41 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: May 18, 2004, 15:48:40 ; Search time 53 Seconds
(without alignments)
31.987 Million cell updates/sec

Title: CLAIM11
Perfect score: 36
Sequence: 1 DHXRWK 6

Scoring table: BLOSUM62DX
Gapop 10.0 , Gapext 0.5

Searched: 1586107 seqs, 282547505 residues

Total number of hits satisfying chosen parameters: 325896

Minimum DB seq length: 0
Maximum DB seq length: 10

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A Geneseq_29Jan04:*

- 1: Geneseqp1980s:*
- 2: Geneseqp1990s:*
- 3: Geneseqp2000s:*
- 4: Geneseqp2001s:*
- 5: Geneseqp2002s:*
- 6: Geneseqp2003as:*
- 7: Geneseqp2003bs:*
- 8: Geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	36	100.0	6	AAB90862	AAB90862 Melanocyt
2	36	100.0	6	AAB92403	AAB92403 Miscellan
3	36	100.0	7	AAP82643	AAP82643 Cyclic al
4	36	100.0	7	AAP82647	AAP82647 Linear al
5	36	100.0	7	AAP82640	AAP82640 Linear al
6	36	100.0	7	AAR26232	AAR26232 MSH pepti
7	36	100.0	7	AAR65782	AAR65782 Cyclic pe
8	36	100.0	7	AAR65783	AAR65783 Cyclic pe
9	36	100.0	7	AAR65783	AAR65783 Cyclic pe
10	36	100.0	7	AAR65783	AAR65783 Cyclic pe
11	36	100.0	7	AAR65783	AAR65783 Cyclic pe
12	36	100.0	7	AAR65783	AAR65783 Cyclic pe
13	36	100.0	7	AAR65783	AAR65783 Cyclic pe
14	36	100.0	7	AAR65783	AAR65783 Cyclic pe
15	36	100.0	7	AAR65783	AAR65783 Cyclic pe
16	36	100.0	7	AAR65783	AAR65783 Cyclic pe
17	36	100.0	7	AAR65783	AAR65783 Cyclic pe
18	36	100.0	7	AAR65783	AAR65783 Cyclic pe
19	36	100.0	7	AAR65783	AAR65783 Cyclic pe
20	36	100.0	7	AAR65783	AAR65783 Cyclic pe
21	36	100.0	7	AAR65783	AAR65783 Cyclic pe
22	36	100.0	7	AAR65783	AAR65783 Cyclic pe
23	36	100.0	7	AAR65783	AAR65783 Cyclic pe
24	36	100.0	7	AAR65783	AAR65783 Cyclic pe
25	36	100.0	7	AAR65783	AAR65783 Cyclic pe

26	36	100.0	7	3	AA987805	AA987805 Melanocor
27	36	100.0	7	3	AA987806	AA987806 Melanocor
28	36	100.0	7	3	AA987804	AA987804 Melanocor
29	36	100.0	7	3	AA987808	AA987808 Melanocor
30	36	100.0	7	3	AA987808	AA987808 Melanocor
31	36	100.0	7	3	AA987808	AA987808 Melanocor
32	36	100.0	7	3	AA987808	AA987808 Melanocor
33	36	100.0	7	3	AA987808	AA987808 Melanocor
34	36	100.0	7	3	AA987808	AA987808 Melanocor
35	36	100.0	7	3	AA987808	AA987808 Melanocor
36	36	100.0	7	3	AA987808	AA987808 Melanocor
37	36	100.0	7	3	AA987808	AA987808 Melanocor
38	36	100.0	7	3	AA987808	AA987808 Melanocor
39	36	100.0	7	3	AA987808	AA987808 Melanocor
40	36	100.0	7	3	AA987808	AA987808 Melanocor
41	36	100.0	7	3	AA987808	AA987808 Melanocor
42	36	100.0	7	3	AA987808	AA987808 Melanocor
43	36	100.0	7	3	AA987808	AA987808 Melanocor
44	36	100.0	7	3	AA987808	AA987808 Melanocor
45	36	100.0	7	3	AA987808	AA987808 Melanocor

ALIGNMENTS

RESULT 1
AAB90862
ID AAB90862 standard; peptide; 6 AA.
XX AAB90862;
XX AC AAB90862;
XX DT 22-JUN-2001 (first entry)
XX DE Melanocyte stimulating hormone (MSH) related peptide SEQ ID NO:34.
XX KW Protection; endogenous therapeutic peptide; peptidase; conjugation;
KW blood component; modification; succinimide; maleimido group; amino;
KW hydroxyl; thiol; hormone; growth factor; neurotransmitter.
XX OS Homo sapiens.
XX OS Synthetic.
XX DN WO2000069900-A2.
XX PD 23-NOV-2000.
XX PF 17-MAY-2000; 2000WO-US013576.
XX PR 17-MAY-1999; 99US-0134406P.
XX PR 10-SEP-1999; 99US-0153406P.
XX PR 15-OCT-1999; 99US-0159783P.
XX PA (CONJ-) CONJUCHEM INC.
XX PI Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibadeau K;
XX WPI; 2001-112059/12.
XX DR Modifying and attaching therapeutic peptides to albumin prevents
XX peptidase degradation, useful for increasing length of in vivo activity.
XX PS Disclosure; Page 201; 733pp; English.
XX CC The present invention describes a modified therapeutic peptide (I)
XX comprising a therapeutically active amino acid region (III) and a
XX reactive group (II) (e.g. succinimide and maleimido groups) attached to
XX a less therapeutically active amino acid region (IV), which covalently
XX bonds with amino/hydroxyl/thiol groups on blood components to form a
XX peptidase stabilised therapeutic peptide composed of 3-50 amino acids.
XX (I) are useful for modifying therapeutic peptides e.g. hormones, growth
XX factors and neurotransmitters, to protect them from peptidase activity
XX vivo for the treatment of various disorders. Endogenous therapeutic
XX peptides are not suitable as drug candidates as they require frequent

CC administration due to rapid degradation by peptidases in the body.
CC Modifying and attaching therapeutic peptides to albumin prevents or
CC reduces the action of peptidases to increase length of activity (half
CC life) and specificity as bonding to large molecules decreases
CC intracellular uptake and interference with physiological processes.
CC AAB90829 to AAB92441 represent peptides which can be used in the
CC exemplification of the present invention
XX
SQ Sequence 6 AA;
Query Match 100.0%; Score 36; DB 4; Length 6;
Best Local Similarity 83.3%; Pred. No. 1.4e+06;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 1 DHXRWK 6
Db 1 DHERWK 6
RESULT 2
AAB92403
ID AAB92403 standard; peptide; 6 AA.
XX
AC AAB92403;
XX
DT 22-JUN-2001 (first entry)
XX
DE Miscellaneous peptide SEQ ID NO:1579.
XX
KW Protection; endogenous therapeutic peptide; peptidase; conjugation;
KW blood component; modification; succinimidyl; maleimido group; amino;
KW hydroxyl; thiol; hormone; growth factor; neurotransmitter.
XX
OS Homo sapiens.
OS Synthetic.
XX
PN WO200069900-A2.
XX
PD 23-NOV-2000.
XX
PF 17-MAY-2000; 2000WO-US013576.
XX
PR 17-MAY-1999; 99US-0134406P.
PR 10-SEP-1999; 99US-0153406P.
PR 15-OCT-1999; 99US-0159783P.
XX
PA (CONJ-) CONJUCHEM INC.
XX
PI Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudeau K;
XX
DR WPI; 2001-112059/12.
XX
PT Modifying and attaching therapeutic peptides to albumin prevents
PT peptidase degradation, useful for increasing length of in vivo activity.
XX
PS Disclosure; Page 720; 733pp; English.
XX
CC The present invention describes a modified therapeutic peptide (I)
CC comprising a therapeutically active amino acid region (III) and a
CC reactive group (II) (e.g. succinimidyl and maleimido groups) attached to
CC a less therapeutically active amino acid region (IV), which covalently
CC bonds with amino/hydroxyl/thiol groups on blood components to form a
CC peptidase stabilised therapeutic peptide composed of 3-50 amino acids.
CC (I) are useful for modifying therapeutic peptides e.g. hormones, growth
CC factors and neurotransmitters, to protect them from peptidase activity in
CC vivo for the treatment of various disorders. Endogenous therapeutic
CC peptides are not suitable as drug candidates as they require frequent
CC administration due to rapid degradation by peptidases in the body.
CC Modifying and attaching therapeutic peptides to albumin prevents or
CC reduces the action of peptidases to increase length of activity (half
CC life) and specificity as bonding to large molecules decreases
CC intracellular uptake and interference with physiological processes.
CC AAB90829 to AAB92441 represent peptides which can be used in the

CC exemplification of the present invention
XX
SQ Sequence 6 AA;
Query Match 100.0%; Score 36; DB 4; Length 6;
Best Local Similarity 83.3%; Pred. No. 1.4e+06;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 1 DHXRWK 6
Db 1 DHERWK 6
RESULT 3
AAP82643
ID AAP82643 standard; protein; 7 AA.
XX
AC AAP82643;
XX
DT 25-MAR-2003 (revised)
DT 07-NOV-1990 (first entry)
XX
DE Cyclic alpha-melanotrophin (MSH) analogue.
XX
KW Alpha-melanotrophin; alpha-MSH; melanin; hypopigmentation.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Modified-site 2..7
FT /label= Peptide bond links glu and lys.
FT Modified-site 4
FT /label= D-Phe.
XX
PN EP292291-A.
XX
PD 23-NOV-1988.
XX
PF 19-MAY-1988; 88EP-00304551.
XX
PR 22-MAY-1987; 87US-00053229.
XX
PA (UYPA) UNIVERSITY PATENTS INC.
XX
PI Hruby VJ, Alobeidi FA, Hadley ME;
XX
DR WPI; 1988-331833/47.
XX
PT New linear and cyclic alpha-melanotrophin analogues - having increased
PT potency and duration of action, used to stimulate melanocytes to produce
PT melanin.
XX
PS Claim 2; Page 20; 20pp; English.
XX
CC The analogues are more potent and/or last longer than alpha-MSH and/or
CC are more resistant to degradation by blood serum enzymes. They may be
CC useful than alpha-MSH in diagnosis, therapy and research into
CC hypopigmentation dysfunctions etc. (Updated on 25-MAR-2003 to correct PI
CC field.)
XX
SQ Sequence 7 AA;
Query Match 100.0%; Score 36; DB 1; Length 7;
Best Local Similarity 83.3%; Pred. No. 1.4e+06;
Matches 5; Conservative 1; Mismatches 0; Indels 0; Gaps 0;
QY 1 DHXRWK 6
Db 2 DHERWK 7
RESULT 4
AAP82647